

EXHIBIT 4

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 1

1 UNITED STATES DISTRICT COURT
2 FOR THE WESTERN DISTRICT OF WASHINGTON
3 AT SEATTLE

4 MICROSOFT CORPORATION,
5 Plaintiff,
6 -against-
7 MOTOROLA, INC., et al.,
8 Defendants.

9 MOTOROLA MOBILITY, INC., et al.,
10 Plaintiffs,

11 Case No.
12 -against- 1:10-1823-JLR

13 MICROSOFT CORPORATION,
14 Defendant.

15 August 28, 2012
16 8:41 a.m.

17 C O N F I D E N T I A L

18 Videotaped deposition of RAMAMIRTHAM
19 SUKUMAR, held at the offices of Sidley
20 Austin LLP, 757 Seventh Avenue, New York,
21 New York, before Gail F. Schorr, a
22 Certified Shorthand Reporter, Certified
23 Realtime Reporter and Notary Public
24 within and for the State of New York.

25 (2005-445668)

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 2			Page 3		
1 A P P E A R A N C E S: 2 ROPES & GRAY LLP 3 Attorneys for Motorola Mobility, Inc., 4 Motorola Solutions and the Witness 5 1211 Avenue of the Americas 6 New York, New York 10036-8704 7 BY: KHUE V. HOANG ESQ. 8 (khue.hoang@ropesgray.com)			1 E X H I B I T S 2 DESCRIPTION PAGE LINE 3 (PX Exhibit 338 for 8 9 4 identification, expert 5 report of Dr. R. Sukumar.) 6 (PX Exhibit 339 for 33 13 7 identification, Bates 8 stamped MOTM_WASH1823_ 9 0603556.) 10 (PX Exhibit 340 for 45 13 11 identification, Bates 12 stamped MOTM_WASH1823_ 13 0603557 through 3586.) 14 (PX Exhibit 341 for 67 3 15 identification, letter dated 16 August 3, 2012, to Ms. 17 Thayer from Mr. Schoenhard.) 18 (PX Exhibit 342 for 74 7 19 identification, letter dated 20 August 7, 2012, to Ms. 21 Thayer from Mr. Schoenhard.) 22 (PX Exhibit 343 for 81 21 23 identification, letter dated 24 August 21, 2012, to Ms. 25 Thayer from Mr. Schoenhard.)		
12 ALSO PRESENT: 13 TIMOTHY H. SAVAGE, Ph.D. 14 Finance Scholars Group 15 ROBERT GIBBS, Videographer, 16 Merrill Legal Solutions					
17 18 19 20 21 22 23 24 25					
Page 4			Page 5		
1 (PX Exhibit 344 for 83 2 2 identification, letter dated 3 August 24, 2012, to Ms. 4 Thayer from Mr. Schoenhard.) 5 (PX Exhibit 345 for 87 25 6 identification, errata to 7 July 24th expert report of 8 Dr. R. Sukumar.) 9 (PX Exhibit 346 for 102 22 10 identification, Bates 11 stamped MOTM-WASH1823_ 12 0603538.) 13 (PX Exhibit 347 for 102 25 14 identification, Bates 15 stamped MOTM-WASH1823_ 16 0603547.) 17 (PX Exhibit 348 for 107 14 18 identification, Bates 19 stamped MOTM-WASH 20 1823_0606223.log.) 21 (PX Exhibit 349 for 118 22 22 identification, Bates 23 stamped MOTM_WASH1823_ 24 0606212.log.) 25			1 (PX Exhibit 350 for 120 8 2 identification, pages 3 excerpted from the book 4 entitled "Introduction to 5 the theory of statistics.") 6 (PX Exhibit 351 for 158 22 7 identification, Bates 8 stamped MOTM_WASH1823_ 9 0603683.) 10 11 12 13 14 (Instruction not to answer.) 128 7 15 16 17 18 19 20 21 22 23 24 25		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

		Page 6			Page 7
08:40:43	1	THE VIDEOGRAPHER: Good morning, everyone. This is the video operator speaking, Robert Gibbs, of Merrill Legal Solutions of San Francisco, 135 Main Street, Suite 400, San Francisco, California 94105. Today is August 28th, 2012 and the time is 8:41 a.m. We are at the offices of Sidley Austin LLP, 787 Seventh Avenue, New York City, New York, 10019, to take the videotaped deposition of Dr. Ramamirtham Sukumar, in the matter of Motorola Mobility, Inc., versus Microsoft Corporation, and counterclaim, Microsoft versus Motorola, in the United States District Court, for the Western District of Washington at Seattle, case number C10-1823-JLR.	08:42:03	1	THE VIDEOGRAPHER: Will the court reporter, Gail Schorr of Merrill Legal Solutions, please swear witness. RAMAMIRTHAM SUKUMAR, called as a witness, having been first duly sworn by the Notary Public (Gail F. Schorr), was examined and testified as follows:
08:40:52	2		08:42:04	2	THE VIDEOGRAPHER: You may proceed, counsel.
08:40:55	3		08:42:07	3	EXAMINATION BY MS. THAYER:
08:40:57	4		08:42:07	4	Q. Good morning, Dr. Sukumar. I believe you have been deposed before; is that right?
08:41:00	5		08:42:07	5	A. That's correct.
08:41:03	6		08:42:07	6	Q. So you are somewhat familiar with the proceeding?
08:41:07	7		08:42:07	7	A. Yes.
08:41:12	8		08:42:16	8	Q. I would remind you that of course this is an informal setting, and if at any point you do need to take a break, please indicate and we'll be happy to take a break. I just prefer if there's a question pending that you answer the question first and then we can take a break. Okay?
08:41:15	9		08:42:16	9	
08:41:19	10		08:42:17	10	
08:41:23	11		08:42:18	11	
08:41:26	12		08:42:18	12	
08:41:32	13		08:42:20	13	
08:41:34	14		08:42:22	14	
08:41:35	15		08:42:22	15	
08:41:38	16		08:42:23	16	
08:41:40	17		08:42:24	17	
08:41:42	18		08:42:25	18	
08:41:45	19		08:42:27	19	
08:41:50	20	Will counsel please introduce themselves for the record.	08:42:29	20	
08:41:52	21		08:42:31	21	
08:41:55	22	MS. THAYER: Patricia Thayer, for plaintiff Microsoft.	08:42:33	22	
08:41:58	23		08:42:35	23	
08:42:00	24	MS. HOANG: Khue Hoang, Ropes & Gray, on behalf of Motorola Mobility.	08:42:38	24	
08:42:00	25		08:42:39	25	
		Page 8			Page 9
08:42:42	1	A. Yes, I understand.	08:45:08	1	part," what's missing?
08:42:43	2	Q. And if I ask any question that you don't understand or isn't clear, please indicate that to me and I'll do my best to clarify.	08:45:11	2	A. Well some updates on clients that I worked with and so on might be missing out here, some consulting engagements that I've been involved with.
08:42:45	3		08:45:13	3	
08:42:47	4		08:45:15	4	
08:42:50	5		08:45:18	5	
08:42:50	6	A. I will do.	08:45:19	6	
08:42:52	7	MS. THAYER: Let's mark as PX 338 expert report of Dr. R. Sukumar. (PX Exhibit 338 for	08:45:23	7	
08:42:55	8	identification, expert report of Dr. R. Sukumar.)	08:45:24	8	
08:43:15	9		08:45:27	9	
08:43:15	10		08:45:35	10	
08:43:15	11		08:45:37	11	
08:43:15	12	Q. Is this the report that you've prepared for this action?	08:45:37	12	
08:43:17	13		08:45:38	13	
08:43:20	14	A. Yes, I believe so.	08:45:41	14	
08:43:41	15	Q. Would you look at Exhibit C, please. Do we need to disassemble it, can you see it all right? If we need to we can take out that clasp and just put it back in after you finish with your report.	08:45:43	15	
08:43:42	16		08:45:44	16	
08:43:57	17		08:45:49	17	
08:44:03	18		08:45:55	18	
08:44:06	19		08:45:56	19	
08:44:35	20	A. Yes.	08:45:56	20	
08:44:35	21	Q. Is that a copy of your CV?	08:45:58	21	
08:44:41	22	A. That's correct.	08:46:04	22	
08:44:41	23	Q. Is it up to date?	08:46:04	23	
08:44:47	24	A. Yes, for the most part.	08:46:09	24	
08:45:04	25	Q. When you say "for the most	08:46:16	25	

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

				Page 10	Page 11
08:46:19	1	Nomadix case?	08:47:22	1	order in front of me. I believe the
08:46:20	2	A. Yes.	08:47:24	2	information of what the case is all about is
08:46:21	3	Q. Was that report tendered to the	08:47:27	3	public information, but I prefer not to get
08:46:25	4	other side?	08:47:31	4	into the details of the case, being bound by
08:46:26	5	A. Yes.	08:47:33	5	the protective order.
08:46:26	6	Q. What was the general subject	08:47:35	6	Q. What is meant by the words "case
08:46:28	7	matter?	08:47:38	7	under settlement"?
08:46:28	8	A. It had to do with the usage and,	08:47:40	8	A. It is my understanding from the
08:46:36	9	again, I don't want to get into a lot of	08:47:44	9	counsel that the two parties are looking to
08:46:38	10	details here because it's confidential, but	08:47:47	10	settle the case out of -- and not taking it
08:46:41	11	its usage and value of certain features and	08:47:50	11	to trial.
08:46:47	12	benefits.	08:47:50	12	Q. Which party retained you in that
08:46:53	13	Q. What sort of a product was	08:47:57	13	case?
08:46:54	14	involved?	08:47:58	14	A. Nomadix.
08:46:55	15	A. It's just very broadly a	08:48:01	15	Q. Did you perform a survey in that
08:47:00	16	technology product.	08:48:04	16	case?
08:47:04	17	Q. You can't be any more specific	08:48:05	17	A. Yes, I did.
08:47:06	18	than that?	08:48:05	18	Q. Was the survey produced to the
08:47:07	19	A. No. I am bound by the	08:48:09	19	other side?
08:47:09	20	confidentiality of the case that I can't	08:48:10	20	A. Yes.
08:47:12	21	discuss anymore.	08:48:11	21	Q. Was the survey identified as
08:47:12	22	Q. So the product that was accused	08:48:16	22	being confidential under the protective
08:47:15	23	of infringement, you can't identify that	08:48:18	23	order?
08:47:17	24	under the protective order?	08:48:18	24	A. I'm not familiar with that and I
08:47:20	25	A. I don't have the protective	08:48:22	25	would go with the assumption that it is
				Page 12	Page 13
08:48:25	1	under the protective order. So I, I'm not a	08:49:39	1	I can or cannot talk about that case and how
08:48:29	2	legal expert to tell you exactly what it is.	08:49:42	2	much of it is under protective order. But
08:48:31	3	I would err on the side of it being	08:49:46	3	it was an online survey, I can tell you
08:48:33	4	confidential.	08:49:48	4	that. The survey was completed online by
08:48:41	5	Q. What type of a survey did you	08:49:50	5	the respondents.
08:48:44	6	conduct for that case?	08:49:51	6	Q. For the Apple v. Samsung,
08:48:45	7	A. Could you repeat that question.	08:50:11	7	Samsung v. Apple matters, did you prepare
08:48:46	8	Q. What type of a survey did you	08:50:13	8	any report?
08:48:48	9	conduct for that case?	08:50:16	9	A. Yes.
08:48:51	10	A. What exactly do you mean by the	08:50:16	10	Q. How many?
08:48:53	11	type of survey?	08:50:18	11	A. I first prepared three reports
08:48:54	12	Q. What approach did you use to	08:50:21	12	as suggested by those three there.
08:49:00	13	conduct a survey?	08:50:23	13	Q. Which party retained you?
08:49:02	14	A. If what you mean is by approach	08:50:32	14	A. Samsung.
08:49:04	15	is whether it was done in person or whether	08:50:33	15	Q. Did you conduct any survey in
08:49:06	16	it was done through mail or over the phone,	08:50:35	16	connection with those matters?
08:49:10	17	this one was done through the internet.	08:50:36	17	A. Yes, I did.
08:49:14	18	Q. Was it a conjoint survey?	08:50:37	18	Q. How many?
08:49:17	19	A. It involved conjoint analysis,	08:50:38	19	A. There were, again, three
08:49:20	20	yes.	08:50:45	20	separate surveys.
08:49:25	21	Q. Did you personally recruit the	08:50:48	21	Q. Could you describe each of them
08:49:32	22	respondents for that survey or did you have	08:50:50	22	to me in terms of the subject matter?
08:49:34	23	assistance?	08:50:52	23	A. Without getting into any of the
08:49:35	24	A. Again, I can't go into the	08:50:55	24	details, because I don't know, I don't have
08:49:37	25	details of it. Again, I'm not sure how much	08:50:56	25	the documents, and while they're protected,

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 14				Page 15			
08:51:01	1	I can say it was an online survey, had to do	08:52:11	1	Q. Which ones?		
08:51:03	2	with three different products. It involved	08:52:22	2	A. I did. I do know for a fact		
08:51:09	3	conjoint.	08:52:23	3	that the survey reports were entered into		
08:51:14	4	Q. What products did it -- you've	08:52:26	4	evidence and -- yes.		
08:51:18	5	used the word "it." How many online surveys	08:52:29	5	Q. Did you testify at trial?		
08:51:21	6	did you conduct?	08:52:30	6	A. Yes.		
08:51:22	7	A. So there were three different	08:52:38	7	Q. Did the judge clear the		
08:51:25	8	surveys.	08:52:40	8	courtroom at the time that you were		
08:51:29	9	Q. All three online?	08:52:40	9	testifying, in other words, tell everybody		
08:51:30	10	A. Yes.	08:52:42	10	that there was confidential information that		
08:51:31	11	Q. What were the three products?	08:52:46	11	was about to be discussed and that the		
08:51:35	12	A. It had to do with the Apple	08:52:48	12	public should leave the courtroom?		
08:51:40	13	products iPhone, iPad, and iPod Touch, and	08:52:49	13	A. I don't believe so.		
08:51:46	14	there were specific models and versions.	08:52:55	14	Q. Just generally, what opinions		
08:51:49	15	Again, I don't want to get into all the	08:52:59	15	did you provide at trial in that case?		
08:51:51	16	details.	08:53:06	16	A. I presented the results out of		
08:51:52	17	Q. Well there's been a trial in	08:53:07	17	my survey.		
08:51:54	18	that case, are you aware of that?	08:53:13	18	Q. All three of them?		
08:51:55	19	A. Yes.	08:53:16	19	A. Yes.		
08:51:56	20	Q. It was very publicly discussed	08:53:16	20	Q. Other than what's listed here in		
08:51:59	21	on the internet?	08:53:26	21	your CV, have you provided deposition		
08:52:00	22	A. Correct.	08:53:28	22	testimony in any other case?		
08:52:00	23	Q. Were any of your reports entered	08:53:30	23	A. No.		
08:52:09	24	into evidence, to your knowledge?	08:53:30	24	Q. Are you trained as an economist?		
08:52:11	25	A. Yes.	08:53:38	25	A. No.		
Page 16				Page 17			
08:53:39	1	Q. Are you trained as a	08:55:10	1	written?		
08:53:41	2	statistician?	08:55:21	2	A. Those that have been published,		
08:53:42	3	A. I'm trained -- no.	08:55:22	3	yes.		
08:53:44	4	Q. Do you consider yourself to be	08:55:22	4	Q. Are there any that are pending		
08:53:49	5	an expert in the field of conducting and	08:55:28	5	publication that are not listed here?		
08:53:52	6	analyzing surveys?	08:55:30	6	A. There are others that have been		
08:53:53	7	A. Yes.	08:55:41	7	either written or cited in popular press and		
08:53:53	8	Q. And what is the basis for your	08:55:49	8	those have not been listed out here.		
08:53:56	9	expertise?	08:55:52	9	Q. Could you give me an example of		
08:53:56	10	A. I'm trained in market research	08:55:54	10	what you mean by popular press?		
08:54:00	11	and quantitative methodologies and I have	08:55:55	11	A. So recently in Forbes I was		
08:54:07	12	been doing survey research since 1995.	08:56:00	12	quoted in terms of the use of data and		
08:54:19	13	Q. In your CV in the middle of page	08:56:05	13	analytics in making decisions for large		
08:54:22	14	1 it says "Dr. Sukumar has served as the	08:56:11	14	corporations and how they make decisions.		
08:54:24	15	market research survey expert in cases that	08:56:14	15	So there are citations of that kind.		
08:54:26	16	have dealt with patent and trademark	08:56:17	16	Q. Do you consider that to be a		
08:54:28	17	infringement."	08:56:18	17	publication of yours?		
08:54:29	18	Do you see that?	08:56:19	18	A. Well, as I said, it's not a		
08:54:30	19	A. Yes.	08:56:22	19	publication that is peer reviewed, but it		
08:54:30	20	Q. Have you served as an expert in	08:56:25	20	cites me, it quotes me.		
08:54:32	21	any case other than what's discussed on page	08:56:27	21	Q. You mentioned that the Nomadix		
08:54:34	22	1 and the present action?	08:56:56	22	case involved conjoint analysis. How many		
08:54:36	23	A. Not as an expert, no.	08:57:01	23	studies have you supervised or conducted		
08:55:06	24	Q. Does Exhibit C have a complete	08:57:05	24	that involved conjoint analysis?		
08:55:08	25	listing of the articles that you have	08:57:08	25	A. In the last four years I would		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 18				Page 19			
08:57:15	1	say I've done close to, I don't remember the	08:59:02	1	conjoint analysis," that was conjoint		
08:57:19	2	exact number, but I would say close to 300	08:59:05	2	analysis.		
08:57:22	3	studies that involved conjoint analysis.	08:59:06	3	Q. Do any of your publications		
08:57:33	4	Q. Have any of those involved the	08:59:10	4	involve survey methodology?		
08:57:37	5	Xbox?	08:59:11	5	A. Yes, I mean the product line,		
08:57:40	6	A. There are a couple that involve	08:59:18	6	the heuristics paper does involve the use of		
08:57:50	7	video gaming software that run on Xbox, that	08:59:21	7	survey methods.		
08:58:01	8	may run on Xbox, yes.	08:59:24	8	Q. Does that article, does it		
08:58:03	9	Q. Did any of them involve the Sony	08:59:27	9	address survey methodology or does it just		
08:58:10	10	PlayStation?	08:59:30	10	simply mention it?		
08:58:12	11	A. Well since we're talking about	08:59:31	11	A. Well it uses data from survey		
08:58:14	12	the broad area of video games and design of	08:59:34	12	methodologies.		
08:58:18	13	video games, they all look at different	08:59:34	13	Q. When were you first contacted to		
08:58:21	14	platforms and they use different platforms.	08:59:42	14	perform work in this matter?		
08:58:23	15	Q. Was the object of your research	08:59:44	15	A. You mean in this particular		
08:58:26	16	the platforms or the video games themselves?	08:59:48	16	case?		
08:58:29	17	A. The video games, as I mentioned.	08:59:48	17	Q. Yes.		
08:58:31	18	Q. Have you published any research	08:59:49	18	A. Okay. I was contacted, and I		
08:58:39	19	on conjoint methods in any journal?	08:59:53	19	don't know the exact, I don't remember the		
08:58:45	20	A. Well, one of the papers there	08:59:55	20	exact dates here, but roughly around the end		
08:58:47	21	which deals with the use -- with product	08:59:58	21	of the third week of I would say June.		
08:58:49	22	line design, involves conjoint methods and	09:00:04	22	Q. Of 2012?		
08:58:53	23	looking at product line design. So the one	09:00:05	23	A. 2012, yes.		
08:58:56	24	that is published in Management Science says	09:00:06	24	Q. Who contacted you?		
08:59:00	25	"Heuristics for product-line selection using	09:00:08	25	A. By counsel.		
Page 20				Page 21			
09:00:10	1	Q. And who was that?	09:01:21	1	about the case that pertained to the work		
09:00:11	2	A. Josef Schenker.	09:01:23	2	that you would be doing on the case?		
09:00:17	3	Q. And when were you specifically	09:01:25	3	A. So let me --		
09:00:19	4	retained to perform work for the case?	09:01:28	4	MS. HOANG: Let me interpose a		
09:00:22	5	A. Somewhere during that same week.	09:01:30	5	cautionary instruction here. If you		
09:00:26	6	Q. What were you told, or what was	09:01:32	6	can recall specifically what was		
09:00:35	7	described to you about the scope of your	09:01:34	7	communicated to you prior to your		
09:00:40	8	duties for this case?	09:01:37	8	retention on this case then you can		
09:00:43	9	MS. HOANG: Objection. I'm	09:01:39	9	answer. Nothing is to be communicated		
09:00:44	10	going to instruct you not to answer	09:01:42	10	after you were retained for this case,		
09:00:46	11	that on the grounds of privilege. If	09:01:44	11	if you can make that distinction.		
09:00:47	12	you want to rephrase and narrow that	09:01:45	12	A. Okay, so nothing was		
09:00:49	13	up, we'll take it piece by piece.	09:01:47	13	communicated to me prior to being retained		
09:00:51	14	Q. Were you provided by counsel any	09:01:50	14	if that's what you're looking at.		
09:00:53	15	factual background before you were retained	09:01:54	15	Q. After you were retained, did		
09:00:56	16	for this case about what it involved?	09:01:57	16	counsel provide you any facts that you		
09:00:59	17	A. There was no factual background	09:01:59	17	relied on in preparing your report?		
09:01:05	18	given to me. It was verbal conversation	09:02:03	18	MS. HOANG: You can answer yes		
09:01:08	19	with counsel.	09:02:05	19	or no.		
09:01:09	20	Q. It was what?	09:02:05	20	A. So I'm not very clear when you		
09:01:10	21	A. It was verbal counsel he --	09:02:07	21	say facts, what do you mean by facts about		
09:01:13	22	verbal conversation with counsel, so counsel	09:02:09	22	the case? That's the area that I'm not		
09:01:16	23	spoke to me.	09:02:11	23	clear about. Because I was asked to do		
09:01:17	24	Q. Right. I'm asking you what	09:02:17	24	certain things in terms of my report and the		
09:01:19	25	counsel, what facts counsel provided you	09:02:20	25	objectives are specified and that's how I		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 22				Page 23			
09:02:23	1	went about it.		09:04:03	1	team conduct a set of interviews with	
09:02:23	2	So when you say facts about the		09:04:11	2	consumers who had purchased Xbox 360s in	
09:02:25	3	case, I'm not clear what you mean by that.		09:04:17	3	order to gauge an initial understanding from	
09:02:28	4	Q. Information about the products		09:04:23	4	them about what were some of the features	
09:02:32	5	or features that would be the subject of		09:04:26	5	used, the benefits that people look for in	
09:02:38	6	your research and opinions.		09:04:31	6	these gaming consoles.	
09:02:42	7	MS. HOANG: Start with a yes or		09:04:37	7	With that input, I designed the	
09:02:43	8	no first.		09:04:42	8	survey. And that survey was then pilot	
09:02:44	9	A. Yes.		09:04:48	9	tested by my field team. The results of the	
09:02:44	10	Q. What facts about the products or		09:04:54	10	pilot tests were provided to me.	
09:02:48	11	features were provided to you by counsel?		09:04:59	11	And the final survey was	
09:02:51	12	A. The general description of the		09:05:03	12	launched to a set of consumers who represent	
09:02:59	13	product and the general description of the		09:05:09	13	the US population. They go through the	
09:03:05	14	features that needed to be looked at in the		09:05:13	14	usual screening criteria in the survey. The	
09:03:08	15	survey.		09:05:16	15	data was obtained and analyzed.	
09:03:08	16	Q. When did you commence work on		09:05:18	16	Q. On what date did you first begin	
09:03:31	17	the survey?		09:05:21	17	to design the survey?	
09:03:31	18	A. Sometime towards the end of the		09:05:22	18	A. I don't recall the exact date.	
09:03:40	19	month of June. I don't remember the exact		09:05:27	19	It was sometime after we were engaged.	
09:03:42	20	date, yes, but somewhere around there.		09:05:28	20	Q. Was it days or weeks after, do	
09:03:44	21	Q. And once you commenced work on		09:05:32	21	you recall?	
09:03:51	22	the survey, could you describe to me what		09:05:32	22	A. I don't expect it to be weeks.	
09:03:53	23	you did?		09:05:35	23	It was pretty much a few days after.	
09:03:54	24	A. Well, the first step that was		09:05:37	24	Q. Do you have any drafts of the	
09:03:58	25	involved was to have my moderators, my field		09:05:48	25	survey?	
Page 24				Page 25			
09:05:50	1	A. I've included the version that		09:07:14	1	used proctors or people responsible for the	
09:05:53	2	was programmed and the final version. The		09:07:22	2	logistics, but fundamentally she did the	
09:05:58	3	drafts of the survey for pilot testing were		09:07:26	3	moderating.	
09:06:01	4	given to my field team.		09:07:31	4	Q. So she was the only person to	
09:06:05	5	Q. Do you still have them?		09:07:33	5	interview consumers who had purchased	
09:06:06	6	A. When you say do you still have		09:07:36	6	Xboxes; is that right?	
09:06:10	7	them, I'm not carrying them with me today.		09:07:37	7	A. That's correct.	
09:06:13	8	And I personally don't keep, I always		09:07:38	8	Q. How many people did she	
09:06:16	9	overwrite on top of my other versions, so I		09:07:41	9	interview?	
09:06:20	10	don't have that.		09:07:41	10	A. So the first set of interviews	
09:06:20	11	Q. Are there any drafts of the		09:07:43	11	were a total of about 30 and then the pilot	
09:06:25	12	survey still in existence?		09:07:50	12	tests involved another 60 people.	
09:06:28	13	A. The version that was pre-tested		09:07:51	13	Q. When you say about 30, do you	
09:06:33	14	should be there with my field team.		09:07:53	14	recall the number?	
09:06:46	15	Q. You mentioned your field team		09:07:53	15	A. It's -- I need to look at my	
09:06:52	16	conducted a set of interviews with		09:07:56	16	report. I think it was 30.	
09:06:55	17	consumers. Who were the people in this		09:07:57	17	Q. If it's in your report we'll	
09:06:57	18	field team?		09:07:59	18	find it.	
09:06:58	19	A. Lia Pasternack as the moderator.		09:08:00	19	A. Okay.	
09:07:01	20	She's the one who does -- in this case she's		09:08:05	20	Q. Did she do these all in one day?	
09:07:06	21	the one who did that. She's the head of the		09:08:07	21	A. Well, the way, I mean the way it	
09:07:08	22	field team.		09:08:12	22	works is she briefs me on what was done	
09:07:08	23	Q. Well did she do it, or did a		09:08:16	23	verbally and the way I was briefed was that	
09:07:11	24	team do it, or both?		09:08:21	24	it was done in a mall and respondents were	
09:07:12	25	A. No, she did it. She may have		09:08:26	25	invited, they were recruited by the	

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 26				Page 27			
09:08:29	1	proctors, they were brought in, there maybe	09:09:34	1	something that is important for me as far as		
09:08:33	2	two or three at a time, and that's how she	09:09:41	2	it doesn't change my design of the survey or		
09:08:35	3	conducted it.	09:09:46	3	my process. What I need is information		
09:08:37	4	I don't recall exactly whether	09:09:48	4	about -- from -- that is qualitative in		
09:08:38	5	she did it in a day or two days. That's not	09:09:50	5	nature. So the exact day or days does not		
09:08:40	6	something that matters to me.	09:09:53	6	matter to me.		
09:08:41	7	Q. Do you know when she did it?	09:09:54	7	Q. I understand it doesn't, but if		
09:08:43	8	A. It would have been right when	09:09:55	8	it did, how would you go about finding out		
09:08:46	9	we, you know, few days after we were engaged	09:09:57	9	the date this year that interviews were		
09:08:49	10	to start with the initial round of 30	09:10:00	10	conducted of these, in this mall?		
09:08:51	11	interviews, and then subsequently after the	09:10:09	11	A. You know, I wouldn't know. Her		
09:08:54	12	survey was designed and programmed she would	09:10:11	12	team would probably have a record of it or		
09:08:56	13	have done the pilot survey. So again, I	09:10:13	13	she would be able to, you know, the mall		
09:09:00	14	don't know the exact dates, but it would	09:10:17	14	that we went to, obviously it's a facility		
09:09:02	15	have been in that, the week after we were	09:10:21	15	that we utilize, they would have a record of		
09:09:04	16	engaged, somewhere around there.	09:10:23	16	it. But I don't personally have any record		
09:09:10	17	Q. Do you have a calendar that	09:10:25	17	of that.		
09:09:11	18	would reflect any of these dates more	09:10:26	18	Q. Which mall did you go to?		
09:09:13	19	specifically?	09:10:27	19	A. I don't recall.		
09:09:15	20	A. No.	09:10:29	20	Q. I should correct that question.		
09:09:16	21	Q. If it were important for you to	09:10:33	21	Which mall did she go to?		
09:09:21	22	determine on which day or days these	09:10:34	22	A. I'm not aware of that. These		
09:09:26	23	interviews were conducted, how would you go	09:10:37	23	are, again, standard procedures that she's		
09:09:30	24	about determining that?	09:10:40	24	trained to do and she knows, and the		
09:09:30	25	A. I'm not sure that that is	09:10:45	25	selection of the mall does not impact the		
Page 28				Page 29			
09:10:49	1	steps that were followed and the results	09:11:57	1	find the people for her to interview?		
09:10:50	2	that came out of that.	09:11:59	2	A. The instructions that I had		
09:10:53	3	Q. Did she rent a room at this	09:12:02	3	given her were along the lines of the		
09:10:59	4	mall, or did she just set up near some	09:12:08	4	screener that we had put together, that I		
09:11:02	5	store?	09:12:11	5	have put together for the study. So it's		
09:11:03	6	A. So most malls, this is my	09:12:14	6	part of the exhibit here where there's a set		
09:11:05	7	understanding, most malls would have a	09:12:17	7	of questions about age, gender, ethnicity.		
09:11:08	8	facility on the mall site that does recruit	09:12:26	8	Again, the purpose of that mall		
09:11:13	9	people and help, provides you with the	09:12:28	9	intercept was not to, the purpose of that		
09:11:16	10	facility to do the necessary interviews, and	09:12:32	10	was essentially to focus on the question		
09:11:20	11	since these are qualitative in nature and	09:12:35	11	about Xbox 360. It had nothing to do with		
09:11:21	12	exploratory in nature, she would have	09:12:41	12	having a representative sample. It's an		
09:11:23	13	engaged one of those facilities in order to	09:12:45	13	exploratory exercise. So but the guidelines		
09:11:26	14	complete that exercise.	09:12:48	14	are very similar to, were exactly the same		
09:11:27	15	Q. So do you know for a fact that	09:12:50	15	as the questionnaire, the first few		
09:11:29	16	she rented a room rather than setting up	09:12:54	16	questions in the questionnaire.		
09:11:33	17	outside a store, or are you just telling me	09:12:55	17	Q. Could you please point in your		
09:11:36	18	generally your understanding of how it might	09:12:56	18	report to what you're referring to as to		
09:11:38	19	have gone?	09:12:58	19	those guidelines?		
09:11:38	20	A. I don't know for a fact.	09:13:00	20	A. Sure. If you look at section --		
09:11:39	21	Q. How many proctors did she use to	09:13:37	21	Exhibit, is that F2? The tab is the		
09:11:46	22	assist her in this research?	09:13:46	22	previous one. So in Exhibit F2 you see some		
09:11:48	23	A. I don't know for a fact. It	09:13:58	23	questions that ask about gender, QA1 is		
09:11:50	24	doesn't impact my results in any way.	09:14:03	24	about gender. QA2 is about the year that		
09:11:53	25	Q. How did she instruct them to	09:14:07	25	was born. So guidelines would have been,		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 30				Page 31			
09:14:11	1	because none of these matter, the general	09:15:52	1	For example, in QA9, if someone		
09:14:13	2	guidelines would have begun with QA7 or QA8.	09:15:56	2	said I was not at all responsible for the		
09:14:26	3	And QA9. So those would be the key	09:15:58	3	purchase of the Xbox game console, they		
09:14:34	4	questions.	09:16:03	4	would be excluded from participating in the		
09:14:35	5	Q. Those are the key questions that	09:16:06	5	survey.		
09:14:37	6	proctors asked people in the mall, or those	09:16:10	6	Q. Would they be excluded from		
09:14:39	7	are the key questions that -- I'm sorry,	09:16:12	7	participating in the interview with Ms.		
09:14:45	8	your assistant's name?	09:16:16	8	Pasternack?		
09:14:47	9	A. Lia Pasternack.	09:16:16	9	A. I mean they mean would be		
09:14:49	10	Q. Ms. Pasternack. Is it Ms. or	09:16:18	10	participated in the interview with Ms.		
09:14:52	11	doctor?	09:16:21	11	Pasternack, yes.		
09:14:52	12	A. Ms.	09:16:27	12	Q. When she interviewed people, did		
09:14:53	13	Q. Ms. Pasternack asked?	09:16:30	13	she interview two to three at a time or did		
09:14:55	14	A. So my guidance to her was to	09:16:33	14	she interview them individually?		
09:14:57	15	focus on ensuring that the people who	09:16:34	15	A. It is my understanding that she		
09:15:00	16	participate in the qualitative and the pilot	09:16:36	16	did two to three at a time.		
09:15:02	17	are those that are -- that are recruited	09:16:40	17	Q. Were any records kept as to the		
09:15:07	18	using those three questions.	09:16:46	18	demographics of these 30 people that she		
09:15:24	19	Q. What answers did someone have to	09:16:49	19	interviewed?		
09:15:26	20	give to those questions in order to be	09:16:49	20	A. I am not aware, and it would not		
09:15:29	21	brought to Ms. Pasternack by the proctors?	09:16:53	21	matter as far as what I was trying to		
09:15:32	22	A. I believe there's a Word	09:16:58	22	achieve from the objective of the staff.		
09:15:44	23	document of this. This is a screen shot of	09:17:01	23	Q. Are there any records of what		
09:15:47	24	the survey, but there's also a Word document	09:17:03	24	questions she asked during these interviews?		
09:15:50	25	that was given that would contain that.	09:17:06	25	A. Again, the general guidelines		
Page 32				Page 33			
09:17:09	1	given to her was to understand how people go	09:18:36	1	conversation.		
09:17:14	2	about making purchases of Xbox 360. Records	09:18:43	2	Q. Is Ms. Pasternack your employee?		
09:17:22	3	of that or even, you know, taking notes in	09:18:45	3	A. She's an employee of and leads		
09:17:26	4	front of the survey respondents in general	09:18:47	4	the team, yes.		
09:17:29	5	would not be done in order to avoid biasing	09:18:49	5	Q. How long has she been employed		
09:17:35	6	any of the answers or getting people	09:18:51	6	by your company?		
09:17:36	7	concerned.	09:18:53	7	A. She's been employed since, I		
09:17:37	8	I'm not aware of any records.	09:18:55	8	can't remember the exact date, but since		
09:17:45	9	Q. So it's your understanding that	09:18:58	9	somewhere around 2009.		
09:17:46	10	she did not take any notes in front of the	09:19:14	10	MS. THAYER: Let's mark as		
09:17:49	11	individuals when she was conducting these	09:19:15	11	Exhibit 339 a document with Bates		
09:17:52	12	interviews?	09:19:17	12	MOTM_WASH1823_0603556.		
09:17:52	13	A. Well I was briefed by her	09:19:23	13	(PX Exhibit 339 for		
09:17:55	14	verbally in terms of what inputs I needed	09:19:23	14	identification, Bates stamped		
09:18:01	15	for the design of my survey. So I'm not	09:19:55	15	MOTM_WASH1823_0603556.)		
09:18:03	16	aware of what notes she kept after these	09:19:55	16	Q. Do you recognize this document?		
09:18:08	17	interviews.	09:19:56	17	A. I've not seen it before.		
09:18:12	18	Q. Are you aware of whether or not	09:19:57	18	Q. Do you recognize the		
09:18:13	19	she took notes during the interviews?	09:19:59	19	handwriting?		
09:18:15	20	A. In general when -- when people	09:19:59	20	A. Well, I can't, I mean I'm not a		
09:18:20	21	do exploratory research they're trained not	09:20:10	21	handwriting expert here, but I would assume		
09:18:22	22	to take de- -- you know, notes in front of	09:20:12	22	this is probably Ms. Lia Pasternack's		
09:18:26	23	the respondent. So as not to get them	09:20:15	23	handwriting. I'm going by that assumption.		
09:18:30	24	providing conscious biased results, but	09:20:17	24	Q. Why would you go by that		
09:18:33	25	allowing for a more free flowing	09:20:18	25	assumption?		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 34				Page 35			
09:20:19	1	A. Because the notes on here are	09:21:54	1	A. Again, there were two different		
09:20:20	2	things that she mentioned to me verbally and	09:22:01	2	surveys. I don't remember the exact number,		
09:20:24	3	briefed me as I was designing my survey.	09:22:03	3	but including all of our expenses related		
09:20:42	4	MS. THAYER: Could you read that	09:22:07	4	to, so it would take into account the		
09:20:43	5	answer back to me, please.	09:22:09	5	expenses related to doing the various mall		
09:20:45	6	(Record read as requested.)	09:22:12	6	intercepts, the online surveys, paying for		
09:20:54	7	Q. How long did it take you	09:22:16	7	the sample, etc., I would assume it's		
09:20:55	8	initially to design the survey?	09:22:19	8	somewhere around 200, 225, I don't remember		
09:20:57	9	A. And when you say how long, you	09:22:22	9	the exact number.		
09:21:05	10	mean in terms of hours or --	09:22:25	10	Q. 200, 225?		
09:21:08	11	Q. Hours, days, weeks, whatever	09:22:27	11	A. Thousand dollars, \$225,000, for		
09:21:10	12	unit is comfortable to you?	09:22:30	12	all of that, including the analysis for both		
09:21:12	13	A. So I don't have an exact answer	09:22:32	13	the surveys.		
09:21:15	14	for that, but approximately I want to say,	09:22:33	14	Q. Does that include the cost of		
09:21:18	15	you know, at least about eight to ten hours.	09:22:36	15	generating the report?		
09:21:21	16	Q. Spread over how many days?	09:22:37	16	A. Everything, yes.		
09:21:23	17	A. Again, I don't -- I don't have	09:22:46	17	Q. When did the pilot testing		
09:21:28	18	an exact answer, but I would say one to two	09:22:49	18	begin?		
09:21:31	19	days.	09:22:49	19	A. Again, I don't remember exact		
09:21:32	20	Q. Do you bill by the hour?	09:22:57	20	dates. I'm assuming it would be after the		
09:21:35	21	A. Not for the survey part of the	09:23:03	21	in-depth interviews were done, the surveys		
09:21:40	22	-- the survey and my report part of it is	09:23:06	22	would have been written by me, then the team		
09:21:44	23	not on the basis of an hourly rate.	09:23:09	23	that -- the people who do the programming		
09:21:50	24	Q. What have you charged in this	09:23:12	24	would have programmed the survey, you know,		
09:21:51	25	case for the survey?	09:23:17	25	I guess another day for that programming		
Page 36				Page 37			
09:23:19	1	activity and then the pilot tests would have	09:24:26	1	Q. How many days did it take to do		
09:23:23	2	started after that.	09:24:33	2	the pilot testing of the survey, of the		
09:23:24	3	Q. Who did the programming?	09:24:36	3	surveys, excuse me?		
09:23:26	4	A. We have staff that do only	09:24:37	4	A. I would -- I believe it took		
09:23:29	5	programming, yes.	09:24:41	5	about two days or two or three days, I don't		
09:23:30	6	Q. So it's employees of your	09:24:45	6	know the exact number of days.		
09:23:34	7	company?	09:24:46	7	Q. Were both surveys pilot tested		
09:23:34	8	A. Correct.	09:24:50	8	at the same time?		
09:23:35	9	Q. And so you can't tell me what	09:24:50	9	A. I don't recall exactly. That		
09:23:39	10	day you started pilot testing the survey?	09:24:55	10	would have been Lia Pasternack coordinating		
09:23:42	11	A. I don't remember the exact date,	09:25:00	11	that, so I don't know the, whether they were		
09:23:45	12	but I'm -- I want to say it's probably	09:25:05	12	done simultaneously or in parallel. I would		
09:23:50	13	sometime towards the end of, early part of	09:25:07	13	expect they would have done -- they would		
09:23:54	14	July, I mean first week of July or so.	09:25:09	14	have been done by her. And again, she		
09:23:57	15	Q. Were you given a date by which	09:25:11	15	briefed me about how the pilot test went and		
09:24:00	16	the survey needed to be completed?	09:25:14	16	that's really all I needed for my purposes		
09:24:02	17	A. I had been told that a report	09:25:18	17	in terms of what needed to be done next on		
09:24:10	18	was needed by sometime around the third week	09:25:22	18	the analysis.		
09:24:12	19	of July, yes.	09:25:25	19	Q. Who besides Ms. Pasternack pilot		
09:24:16	20	Q. You were told that at the time	09:25:29	20	tested the surveys?		
09:24:17	21	you were retained?	09:25:30	21	A. Well, again, I believe it was		
09:24:18	22	A. At the time I was retained, yes.	09:25:32	22	done in the mall. So the same mall offices		
09:24:21	23	Q. Were you working on any other	09:25:39	23	would have been used to recruit. Lia served		
09:24:23	24	litigation survey at the same time?	09:25:45	24	as the moderator and she may have had		
09:24:25	25	A. No.	09:25:48	25	proctors who greeted and put people in front		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

				Page 38	Page 39
09:25:53	1	of the computer and all of those good	09:27:11	1	encountered or things that need to be
09:25:55	2	things, you know.	09:27:15	2	changed. They're trained, they are people
09:25:56	3	So I'm not absolutely clear	09:27:17	3	who know what, you know, when they encounter
09:25:58	4	about exactly all the details of that. She	09:27:20	4	something they will brief me and accordingly
09:26:02	5	does it, she debriefs me and that's really	09:27:22	5	I would fix it.
09:26:05	6	all I need.	09:27:24	6	Q. Did anyone other than Ms.
09:26:05	7	Q. Did the recruits sit down to a	09:27:26	7	Pasternack moderate or supervise the
09:26:11	8	computer and take the survey on a computer?	09:27:29	8	activity of the individuals who were doing
09:26:13	9	A. It is my understanding that they	09:27:32	9	the pilot testing?
09:26:15	10	may have done that, yes.	09:27:35	10	A. Not to my knowledge, I don't
09:26:29	11	Q. Were there multiple computers in	09:27:37	11	know.
09:26:30	12	the room or just one?	09:27:37	12	Q. Let me go back to the question I
09:26:33	13	A. Typically these mall office --	09:27:42	13	just asked because I don't think I got an
09:26:38	14	intercept offices would have multiple	09:27:44	14	answer. Is there a file that exists today
09:26:41	15	computers. I don't know exactly how many.	09:27:46	15	of the answers to the pilot studies?
09:26:43	16	I don't have a report of it. That doesn't	09:27:53	16	A. It is my understanding that Lia
09:26:45	17	-- I don't need those reports or any such	09:27:57	17	has given notes taken by, or any comments
09:26:48	18	thing to effect, you know, my look at the	09:28:04	18	provided by the people that did the pilot,
09:26:51	19	survey or approval of the survey of the	09:28:11	19	the respondents that did the pilot survey.
09:26:53	20	analysis.	09:28:14	20	For my purposes, I did not rely on those in
09:26:53	21	Q. Do you have a file that contains	09:28:16	21	my report. I relied strictly on verbal
09:26:56	22	the results of the pilot tests?	09:28:21	22	comments that I received from Lia
09:27:02	23	A. I don't use those or I don't	09:28:24	23	Pasternack.
09:27:05	24	look at those. For me, all I need is a	09:28:24	24	Q. What I'm asking is if at this
09:27:09	25	debrief from Lia Pasternack about the issues	09:28:28	25	mall there were multiple computers and
				Page 40	Page 41
09:28:30	1	respondents took a pilot survey, have I got	09:29:37	1	I did not use those results in any of my
09:28:34	2	it right so far?	09:29:39	2	analyses.
09:28:34	3	A. That's correct.	09:29:39	3	Q. But you don't know whether or
09:28:35	4	Q. The results of those surveys,	09:29:42	4	not the computer back in July when this
09:28:39	5	are they available either hard copy or	09:29:46	5	thing was pilot tested, whether the computer
09:28:42	6	electronically somewhere today?	09:29:48	6	captured the data from those pilot surveys?
09:28:44	7	A. I'm not aware. As I say, I	09:29:52	7	A. I'm not aware of that, as I say.
09:28:52	8	believe notes written by the respondents	09:29:56	8	Q. Who would be aware of that?
09:28:55	9	were provided by Lia Pasternack to counsel.	09:30:02	9	A. I would have to check with my
09:28:58	10	Q. That's really a different	09:30:04	10	programmers to see if they actually, if
09:29:02	11	subject matter and I will go into that in	09:30:06	11	those things -- because again, all of these
09:29:04	12	just a minute. But now I'm talking about	09:30:08	12	surveys were done on the computers of the
09:29:06	13	there's a survey, a pilot survey and it's	09:30:13	13	field company, the mall intercept company.
09:29:10	14	programmed into a computer and somebody is	09:30:16	14	So I don't know what they do with those.
09:29:13	15	on the computer taking that survey. Am I	09:30:21	15	Q. What field company is that?
09:29:16	16	right so far about what the pilot test	09:30:23	16	A. I don't remember the exact name.
09:29:17	17	involved?	09:30:25	17	Lia Pasternack would know that.
09:29:18	18	A. That's correct.	09:30:33	18	Q. Did Ms. Pasternack provide any
09:29:18	19	Q. All right. So did the computer	09:30:41	19	written or oral information to the
09:29:22	20	capture the results as the individuals took	09:30:43	20	respondents before they took the pilot
09:29:26	21	the survey? Did the computer capture the	09:30:45	21	survey?
09:29:28	22	results?	09:30:50	22	A. She would have -- you know, the
09:29:28	23	A. I am not aware of those results.	09:30:52	23	proctors would have brought -- again, I was
09:29:31	24	If you -- if you put into actual data I'm	09:30:54	24	not there, so I don't know exactly. My
09:29:34	25	not aware of that. I did not need those or	09:30:56	25	briefing to her is to essentially, and this

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 42				Page 43			
09:31:00	1	is something that is standard when we do	09:32:27	1	questions or didn't understand something?		
09:31:02	2	pilot tests, my briefing to her was to	09:32:30	2	A. I believe that they would have		
09:31:05	3	understand how -- whether people understood	09:32:33	3	been asked to do that and they would have		
09:31:09	4	the survey, if there were complexities in	09:32:35	4	been asked to do that, and they would have		
09:31:12	5	taking the survey, for those to be record --	09:32:36	5	been asked to, either to flag the moderator		
09:31:15	6	to be reported to me, and those were my	09:32:38	6	or write it down, and it is my understanding		
09:31:20	7	instructions.	09:32:42	7	that they were asked to write it down and		
09:31:20	8	So I'm assuming, you know, the	09:32:44	8	provide it to -- and I believe Lia		
09:31:24	9	standard procedure would be, and given I was	09:32:47	9	Pasternack provided that to counsel. Again,		
09:31:28	10	not there, the standard procedure would be	09:32:55	10	I do not rely on those information. I rely		
09:31:31	11	when people are greeted and brought in	09:32:57	11	on the brief that Lia Pasternack provides		
09:31:34	12	they're told what the purpose is verbally	09:33:00	12	me.		
09:31:38	13	and they're asked to complete the survey as	09:33:00	13	Q. Did Ms. Pasternack note how long		
09:31:40	14	if they were normal respondents taking the	09:33:17	14	it took each or any of the respondents to		
09:31:43	15	survey. And they would be asked to indicate	09:33:22	15	complete either of the surveys?		
09:31:48	16	if they have any issues in understanding or	09:33:23	16	A. I'm not aware of that. And		
09:31:53	17	in taking the survey. You know, any issues,	09:33:27	17	again, that information was not needed for		
09:31:59	18	administrative or otherwise, they would have	09:33:33	18	me as far as my design of the survey.		
09:32:01	19	indicated or they would have been asked to	09:33:37	19	Q. Did any one of the 60		
09:32:03	20	write, and I believe they were asked to	09:33:39	20	respondents ask any question or write down		
09:32:06	21	write, and some of those, that information	09:33:43	21	any note while taking the survey?		
09:32:09	22	was provided.	09:33:45	22	A. I wasn't in the room. I was		
09:32:10	23	Q. So were each of the 60 pilot	09:33:49	23	debriefed in terms of, you know, what was		
09:32:16	24	survey respondents asked to indicate as they	09:33:57	24	encountered. I've subsequently seen the		
09:32:20	25	took the survey whether or not they had any	09:34:02	25	notes that Lia provided counsel, and she had		
Page 44				Page 45			
09:34:06	1	briefed me accordingly based on what was out	09:35:14	1	THE VIDEOGRAPHER: One moment,		
09:34:09	2	there.	09:35:15	2	please, watch your microphones. I'll		
09:34:23	3	MS. THAYER: Could you read my	09:35:17	3	change tapes now at this time. Here		
09:34:24	4	question back.	09:35:19	4	now marks the end of tape 1 of the		
09:34:24	5	(Record read as requested.)	09:35:21	5	deposition of Dr. R. Sukumar, the time		
09:34:25	6	Q. Did you get that question	09:35:23	6	is 9:35 a.m., we're off the record.		
09:34:26	7	because I don't think I've gotten an answer	09:40:16	7	(A recess was taken.)		
09:34:27	8	to that one yet?	09:49:30	8	THE VIDEOGRAPHER: Here now		
09:34:29	9	A. I believe that they did, you	09:49:42	9	marks the beginning of tape 2 of the		
09:34:33	10	know, there were comments written on the	09:49:44	10	deposition of Dr. R. Sukumar. The		
09:34:36	11	piece of paper by the respondents.	09:49:46	11	time is 9:49 a.m., we're back on the		
09:34:43	12	Q. Have you ever seen those	09:49:49	12	record.		
09:34:45	13	comments?	09:49:53	13	(PX Exhibit 340 for		
09:34:45	14	A. I did not need to see those	09:49:53	14	identification, Bates stamped		
09:34:47	15	comments. As I said, I was briefed by Lia	09:49:54	15	MOTM_WASH1823_0603557 through 3586.)		
09:34:50	16	Pasternack. I only saw those comments	09:49:54	16	Q. We have marked as Exhibit 340 a		
09:34:52	17	subsequently after they were provided by Lia	09:49:56	17	document that starts with the Bates number		
09:34:55	18	Pasternack to counsel.	09:49:58	18	MOTM_WASH1823_0603557 through 3586.		
09:34:55	19	Q. That was within the last couple	09:50:08	19	Dr. Sukumar, could you take a		
09:34:59	20	of weeks that you saw those?	09:50:10	20	look at this exhibit and let me know whether		
09:35:00	21	A. Somewhere around that, after my	09:50:12	21	or not you've seen any of these pages		
09:35:01	22	report was submitted.	09:50:14	22	before?		
09:35:08	23	MS. THAYER: We've been going	09:50:15	23	A. I have not seen this at the time		
09:35:09	24	about an hour, would this be a	09:50:23	24	of writing my report. I have seen it		
09:35:10	25	convenient time to take a break?	09:50:28	25	subsequently after I submitted my report in		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 46				Page 47			
09:50:30	1	the last couple of weeks, yes.	09:51:42	1	Q. And who gave you that		
09:50:31	2	Q. What is your understanding as to	09:51:44	2	understanding?		
09:50:33	3	what this collection of documents is?	09:51:44	3	A. It is what Lia Pasternack		
09:50:34	4	A. It is my understanding that	09:51:47	4	communicated to counsel and I was informed		
09:50:35	5	these are handwritten notes by -- you know,	09:51:48	5	of that.		
09:50:43	6	this is a piece of paper that was given to	09:51:49	6	Q. Wouldn't it be confusing to a		
09:50:45	7	the participants of the pilot interview and	09:52:09	7	respondent to get a piece of paper that says		
09:50:49	8	they were asked to note, as it says, they	09:52:13	8	"Hi, my name is blank with Optimal Strategix		
09:50:54	9	were asked to note if there were any	09:52:17	9	Group"?		
09:50:56	10	questions, anything they didn't understand,	09:52:18	10	MS. HOANG: Objection to form.		
09:50:59	11	or anything that was not clear, as it says,	09:52:19	11	A. So the -- I would assume that		
09:51:03	12	wording was unclear.	09:52:25	12	the proctors who handed this piece of paper		
09:51:06	13	Q. Is it your testimony, for	09:52:28	13	effectively told people as to why they were		
09:51:10	14	example, if we look on the first page of	09:52:31	14	giving them these -- this piece of paper,		
09:51:12	15	Exhibit 340, that this page was given to a	09:52:33	15	and it was meant largely for the		
09:51:17	16	respondent of the pilot test?	09:52:35	16	participants to note it down.		
09:51:21	17	A. Yes, it is my understanding that	09:52:37	17	I did not rely on any of this		
09:51:27	18	that's what it was, yes.	09:52:40	18	information. I relied strictly on the		
09:51:29	19	Q. So is it your understanding that	09:52:44	19	verbal debrief that I received from Lia		
09:51:30	20	the handwriting on this document is the	09:52:47	20	Pasternack about how, you know, whether the		
09:51:32	21	handwriting of a respondent and not the	09:52:49	21	survey was understood and if there was		
09:51:37	22	handwriting of an employee of Optimal	09:52:52	22	anything that was unclear or we needed to		
09:51:40	23	Strategix Group?	09:52:54	23	change in the survey.		
09:51:40	24	A. That is what I'm given to	09:52:55	24	So I was not present in the		
09:51:42	25	understand.	09:52:57	25	room.		
Page 48				Page 49			
09:53:00	1	Q. Would you look at the second	09:54:17	1	there's anything here that is not understood		
09:53:02	2	page of Exhibit 340. Do you have any	09:54:21	2	or unclear.		
09:53:05	3	understanding as to who wrote down the words	09:54:22	3	And so again, clearly the		
09:53:08	4	"Pick top 5"?	09:54:24	4	purpose here is to make sure that what gets		
09:53:11	5	A. I don't know who wrote "pick top	09:54:26	5	done in the conjoint is understood by the		
09:53:15	6	5."	09:54:31	6	respondents.		
09:53:15	7	Q. Do you have any belief as to	09:54:36	7	Q. Did anything change in the		
09:53:17	8	whether it was an employee of Optimal	09:55:00	8	survey between the initial design and the		
09:53:26	9	Strategix Group or a respondent?	09:55:02	9	final design?		
09:53:32	10	A. No, I would not know for sure.	09:55:03	10	A. One of the things that, if		
09:53:35	11	Q. Do you know what the meaning of	09:55:13	11	you'll look at the price points, we had		
09:53:36	12	those words is?	09:55:16	12	price points designed to be every \$50		
09:53:39	13	A. Well, again, this sheet of paper	09:55:19	13	increments. One area that I recall that we		
09:53:42	14	represents the various attributes and levels	09:55:25	14	-- that was debriefed to me was that most		
09:53:44	15	that we were looking at in terms of defining	09:55:30	15	respondents seemed to indicate that, in		
09:53:48	16	the conjoint, and what is probably being	09:55:35	16	either the way they picked it or whatever		
09:53:53	17	asked is to have the respondents look at	09:55:39	17	the case might be, that they picked it in		
09:53:56	18	these and circle their top 5.	09:55:41	18	increments of a hundred dollars. And also,		
09:54:00	19	Q. Do you know what explanation	09:55:46	19	it made sense therefore to look at the		
09:54:02	20	respondents were given before being asked to	09:55:48	20	survey, the conjoint and keep it in		
09:54:05	21	circle numbers here?	09:55:53	21	increments of a hundred dollars. And that		
09:54:06	22	A. I don't know the exact	09:55:55	22	was one area that we changed.		
09:54:09	23	response -- the exact instructions, but my	09:55:56	23	Q. What is it that respondents did		
09:54:13	24	understanding would have been to say, pick	09:55:58	24	that caused you to change that?		
09:54:15	25	the top 5 but also read through it to see if	09:56:00	25	A. I was debriefed by Lia		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 50				Page 51			
09:56:04	1	Pasternack that the price points and	09:57:28	1	purchased your Xbox 360 and most people		
09:56:05	2	increments of \$50 was not how respondents	09:57:36	2	could only remember approximately how many		
09:56:10	3	saw, and they, there might have been one	09:57:40	3	months ago that they made a purchase but		
09:56:16	4	person who may have mentioned it or whatever	09:57:43	4	could not really indicate a specific month		
09:56:18	5	the case might be, she indicated that the	09:57:45	5	or a year, and I was debriefed about that.		
09:56:20	6	preference would be to keep the price points	09:57:48	6	And those were some changes that were made		
09:56:22	7	in increments of a hundred dollars and	09:57:50	7	to the final version.		
09:56:24	8	that's what we did. So we went \$99 to 199,	09:57:51	8	Q. Did that change occur between		
09:56:29	9	199 to 299 and so on.	09:57:54	9	the pilot study and the final, or did that		
09:56:30	10	Q. As you sit here today can you	09:57:56	10	change occur as a result of the initial		
09:56:32	11	tell me specifically what input she got from	09:58:02	11	interviewing that Ms. Pasternack did?		
09:56:35	12	respondents that caused her to debrief you	09:58:03	12	A. You know, I can't recall exactly		
09:56:39	13	about the increments of 50 versus \$100?	09:58:13	13	when the changes were done, but I have a		
09:56:43	14	A. I cannot say that.	09:58:14	14	feeling -- I mean as I said, I can't recall		
09:56:46	15	Q. What else changed between the	09:58:17	15	-- the price points were changed at the end,		
09:56:47	16	initial design of the survey and the final	09:58:23	16	during the pilot survey. Some of these		
09:56:53	17	design?	09:58:26	17	things were being done where as the inputs		
09:56:54	18	A. So the first thinking of the	09:58:28	18	were received the surveys were being		
09:56:55	19	survey was not to include any graphical	09:58:31	19	corrected. So I can't say that for sure. I		
09:57:03	20	images and then subsequently we did include,	09:58:36	20	was -- I was briefed along the way.		
09:57:08	21	I mean I would say that even for the pilot	09:58:39	21	Q. Do you know whether or not the		
09:57:13	22	the graphical image may have been shown.	09:58:40	22	graphical images contained in the pilot		
09:57:21	23	The other aspect was the	09:58:43	23	survey were the same as the graphical images		
09:57:22	24	question that we had asked initially about	09:58:46	24	in the final survey?		
09:57:25	25	what was the year and month in which you	09:58:47	25	A. I believe so.		
Page 52				Page 53			
09:58:52	1	Q. So what input did you receive	10:00:28	1	A. Not to the best of my knowledge.		
09:58:54	2	from Ms. Pasternack or otherwise about	10:00:32	2	Q. Did any of the questions that		
09:58:56	3	graphical images?	10:00:34	3	had been programmed into the computers		
09:59:11	4	A. When you say what input, can you	10:00:38	4	change?		
09:59:13	5	be more precise? I mean...	10:00:47	5	A. So after the pilot surveys were		
09:59:17	6	Q. You testified that the first	10:00:49	6	completed, counsel had requested the		
09:59:22	7	thinking was not to include graphical images	10:00:52	7	inclusion of a question that dealt with		
09:59:25	8	but then that changed, and I'm asking you	10:01:03	8	video scanning of video content and that,		
09:59:27	9	what input you got from Ms. Pasternack with	10:01:11	9	and that question was included in the		
09:59:29	10	respect to that subject matter?	10:01:12	10	survey.		
09:59:31	11	A. Right. I believe, for example,	10:01:12	11	Q. Can you look at your report and		
09:59:34	12	the Wi-Fi adapter needed to be included as	10:01:14	12	identify that question for me, please.		
09:59:47	13	part of the survey, yes. So there was	10:02:00	13	A. That would be question QH5A1 on		
09:59:50	14	request to describe certain things in	10:02:04	14	Exhibit F2. I don't have a page number.		
09:59:54	15	graphical images, and those were included.	10:02:10	15	Q. Could you just read the question		
09:59:57	16	Q. Anything other than the Wi-Fi	10:02:14	16	into the record so we're clear.		
09:59:59	17	adapter requested?	10:02:16	17	A. Sure, it says "Please select		
10:00:00	18	A. I don't -- I don't recall from	10:02:18	18	the types of video content you have viewed		
10:00:02	19	the top of my head here, but, you know, the	10:02:22	19	on your Xbox Console (connected to your TV).		
10:00:04	20	ones that were discussed by Lia were	10:02:27	20	(Please select all that apply) interlaced,		
10:00:12	21	included in the survey.	10:02:32	21	progressive, not sure.		
10:00:13	22	Q. Is there anything else that	10:02:36	22	QH5A2, for those who checked		
10:00:15	23	changed between the pilot survey and the	10:02:39	23	interlaced "please select the types of video		
10:00:16	24	final survey that you haven't already	10:02:42	24	content you have viewed on your Xbox Console		
10:00:20	25	described for me?	10:02:46	25	(connected to your TV). (Please select all		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 54				Page 55			
10:02:48	1	that apply) MBAFF, (Macroblock Adaptive	10:03:46	1	understanding of it.		
10:02:53	2	Frame or field, progressive, not sure."	10:03:47	2	Q. During the interviews conducted		
10:02:56	3	Q. Both of those questions were	10:03:52	3	by Ms. Pasternack, the first set of		
10:02:59	4	introduced into the survey at the request of	10:03:56	4	interviews, did any of the individuals that		
10:03:01	5	counsel; is that right?	10:04:01	5	she interviewed mention interlaced video		
10:03:02	6	A. That's correct.	10:04:05	6	content?		
10:03:02	7	Q. At the time that you included	10:04:06	7	A. Not to my knowledge. At least I		
10:03:05	8	these in the final survey, did you have an	10:04:10	8	was not debriefed about that.		
10:03:08	9	understanding as to what interlaced video	10:04:12	9	Q. Did any of them mention		
10:03:11	10	content was?	10:04:13	10	progressive video content, to your		
10:03:13	11	A. I'm not a technical expert, and	10:04:15	11	knowledge?		
10:03:15	12	I personally don't, don't have any knowledge	10:04:16	12	A. Not to my knowledge.		
10:03:18	13	of that.	10:04:16	13	Q. Did any of them mention MBAFF,		
10:03:18	14	Q. How about progressive video	10:04:19	14	to your knowledge?		
10:03:22	15	content, did you have an understanding as to	10:04:20	15	A. No, not to my knowledge.		
10:03:24	16	what that was at the time that this survey	10:04:27	16	Q. Did any of them mention H.264?		
10:03:27	17	was conducted?	10:04:32	17	A. I don't know. I was -- not to		
10:03:28	18	A. Yes, not a technical expert. I	10:04:34	18	my knowledge. They did not seem to have an		
10:03:31	19	have some lay understanding of it, but it --	10:04:36	19	issue with it at least.		
10:03:36	20	I have -- I have no personal understanding	10:04:40	20	Q. I'm focusing now on the first		
10:03:38	21	of it.	10:04:42	21	set of interviews that Ms. Pasternack did.		
10:03:39	22	Q. How about MBAFF, did you have	10:04:45	22	At that time, did any of the 30 people she		
10:03:42	23	any understanding of that term at the time	10:04:48	23	talked to mention H.264?		
10:03:43	24	that this survey was conducted?	10:04:53	24	A. Not to my knowledge.		
10:03:45	25	A. No, I didn't have any	10:05:01	25	Q. Did any of them mention 802.11?		
Page 56				Page 57			
10:05:05	1	A. I mean the term Wi-Fi seemed to	10:06:29	1	were, the proctors handed these out. I am		
10:05:09	2	be commonly used.	10:06:37	2	not absolutely sure whether they were handed		
10:05:14	3	Q. How about the term 802.11?	10:06:38	3	out -- I expect that they would have been		
10:05:21	4	A. From what I understand nobody	10:06:41	4	handed out right at the beginning as they		
10:05:24	5	indicated that, at least I wasn't debriefed	10:06:42	5	were agreed to and then brought in and be		
10:05:28	6	that people didn't understand the term	10:06:47	6	told to take notes or keep notes.		
10:05:31	7	802.11 or the term Wi-Fi.	10:06:52	7	So I'm not sure exactly, I		
10:05:33	8	Q. That's not my question. My	10:06:55	8	cannot confirm that.		
10:05:34	9	question is during the initial set of 30	10:06:56	9	Q. You would expect that they'd be		
10:05:36	10	interviews did any of the respondents	10:06:58	10	given these documents before they took the		
10:05:39	11	mention 802.11?	10:07:00	11	survey because it's important before the		
10:05:41	12	A. I don't recall.	10:07:04	12	respondents take the survey that they		
10:05:46	13	Q. All right. Now, let's go back	10:07:06	13	understand that you're interested to find		
10:05:48	14	to Exhibit 340. This is the pilot testing	10:07:10	14	out if anything is confusing, right?		
10:05:59	15	document as I understand it?	10:07:14	15	MS. HOANG: Objection; form.		
10:06:00	16	A. Correct.	10:07:16	16	A. My -- they need a -- as they		
10:06:00	17	Q. Was this document handed to	10:07:17	17	take the survey, the survey they're taking		
10:06:06	18	respondents after they had completed the	10:07:19	18	is very much in the same setting as if they		
10:06:08	19	survey?	10:07:24	19	were taking it at their homes, and so as a		
10:06:09	20	A. Again, I did not rely on this	10:07:26	20	result, the sheet of paper, it really does		
10:06:14	21	document in designing my survey. I relied	10:07:29	21	not impact whether they get it at the		
10:06:17	22	on the verbal debrief for the purposes of	10:07:32	22	beginning or the end.		
10:06:20	23	conforming my questions. I was not present	10:07:33	23	As they go through it, if they		
10:06:24	24	in the room when these pilot surveys were	10:07:35	24	don't understand something, they will have		
10:06:27	25	done. It is my understanding that they	10:07:37	25	raised their hands, they know that the		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 58				Page 59			
10:07:39	1	proctor and the moderator were around, if		10:08:46	1	want to be kind of very colloquial with	
10:07:42	2	they didn't have the piece of paper. If		10:08:48	2	them. The way it is written is really a	
10:07:44	3	they had the piece of paper and had been		10:08:50	3	representation of trying to be more friendly	
10:07:46	4	instructed to do so, they would have kept		10:08:53	4	and colloquial with people and that's how	
10:07:48	5	track and kept notes and discussed that.		10:08:55	5	it's written. So I would not, you know,	
10:07:50	6	For the purposes of my designing		10:08:57	6	classify it as being used one way or the	
10:07:51	7	the survey, I fundamentally needed to know		10:08:59	7	other.	
10:07:54	8	if there were, out of 60 interviews if		10:09:00	8	Q. Well, Dr. Sukumar, doesn't it	
10:07:59	9	people were raising issues about language		10:09:02	9	say "Overall, when you were taking the	
10:08:01	10	that was not clear or steps in taking the		10:09:04	10	survey"? Doesn't that imply that the person	
10:08:05	11	survey that presented issues or questions,		10:09:07	11	reading this document has already taken the	
10:08:11	12	and as far as the debrief I got, I used that		10:09:11	12	survey?	
10:08:14	13	to design my final survey.		10:09:11	13	A. Well, again, I mean this is	
10:08:16	14	Q. The first page of Exhibit 340		10:09:14	14	simply for the purposes of note taking for	
10:08:19	15	reads as though it is something that's		10:09:17	15	the survey -- for the respondent. The	
10:08:21	16	either read to a respondent or given to a		10:09:19	16	language there is colloquial. The language	
10:08:24	17	respondent after the respondent has taken		10:09:23	17	there is largely, you know, you're looking	
10:08:27	18	the survey, wouldn't you agree with that?		10:09:26	18	at people coming in here who are people off	
10:08:30	19	MS. HOANG: Objection; form.		10:09:29	19	the street. You're talking to them in	
10:08:31	20	A. This, well, this is a piece of		10:09:31	20	colloquial language and that's really how it	
10:08:33	21	paper that, you know, was given to them as a		10:09:34	21	is expressed.	
10:08:36	22	way, you know, to keep notes. I mean		10:09:34	22	Q. But you don't know as a fact	
10:08:38	23	whether it says things like the way someone		10:09:36	23	that this document or this form was given to	
10:08:42	24	were talking to them, at the end of the day		10:09:39	24	any respondent before they took the survey,	
10:08:44	25	you're greeting people, human beings, you		10:09:41	25	do you?	
Page 60				Page 61			
10:09:42	1	A. It doesn't impact my -- all I		10:10:58	1	are comments when someone had a concern with	
10:09:45	2	need to know, and which is what was given to		10:11:00	2	a question, they did say something about it.	
10:09:47	3	me is, if there were hiccups, if there were		10:11:07	3	MS. THAYER: Could you read my	
10:09:51	4	things that were not clear, if people		10:11:08	4	question back.	
10:09:54	5	consistently flagged, I needed to know that		10:11:09	5	(Record read as requested.)	
10:09:56	6	and that information was provided to me.		10:11:25	6	A. So difficult to understand, no.	
10:10:06	7	MS. THAYER: Could you read my		10:11:33	7	She did not indicate that people had any	
10:10:07	8	question back.		10:11:35	8	difficulty in terms of understanding the	
10:10:08	9	(Record read as requested.)		10:11:37	9	questions.	
10:10:08	10	A. I was not in the room, so I		10:11:37	10	Q. Did Ms. Pasternack indicate that	
10:10:10	11	don't have -- I don't know for a fact.		10:11:42	11	any of the 60 respondents said anything	
10:10:11	12	Q. Did Ms. Pasternack indicate to		10:11:46	12	during the process of taking the survey?	
10:10:16	13	you that any of the 60 respondents in the		10:11:50	13	A. I mentioned a little while ago	
10:10:20	14	pilot test did indicate during the process		10:11:52	14	difficulty to answer which was the month and	
10:10:25	15	of taking the survey that any of the		10:11:56	15	year question that I mentioned, and I	
10:10:27	16	questions were difficult to understand?		10:11:59	16	brought that to her attention and we made	
10:10:31	17	MS. HOANG: Objection; form.		10:12:01	17	those changes.	
10:10:32	18	A. I think I already mentioned the		10:12:17	18	Q. And that was the only thing that	
10:10:35	19	one question which we changed had to do with		10:12:18	19	any of the 60 respondents mentioned during	
10:10:42	20	what was the month and year that the Xbox		10:12:23	20	the course of taking the survey?	
10:10:47	21	was purchased, was changed to how long ago		10:12:24	21	A. As debriefed by me -- debriefed	
10:10:52	22	it was purchased in terms of number of		10:12:30	22	to me by Lia Pasternack, that's basically	
10:10:54	23	months.		10:12:32	23	the changes, yes.	
10:10:54	24	So she did indicate, and I think		10:12:34	24	Q. Is that unusual to have so few	
10:10:56	25	there are, as I read through it now, there		10:12:37	25	questions raised about a survey?	

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 62				Page 63			
10:12:40	1	A. No, it's not unusual, because	10:15:32	1	A. I say I don't have the survey,		
10:12:42	2	this is a very commonplace survey. You're	10:15:34	2	the pilot survey, the exact pilot survey in		
10:12:46	3	doing a consumer-based survey. The, as a	10:15:38	3	front of me, but I would, by looking at the		
10:12:51	4	company, I -- and we've done a large number	10:15:42	4	sheet of paper here on Exhibit 340, and		
10:12:56	5	of surveys with consumers, we write them in	10:15:46	5	looking at the survey I would expect, I		
10:12:58	6	a manner that the language is very	10:15:49	6	assume that H.264 with its explanation was		
10:13:01	7	colloquial and easy to understand. So it's	10:15:53	7	included on the survey.		
10:13:03	8	not commonplace.	10:15:54	8	Q. Did the pilot survey mention		
10:13:06	9	Q. Did the pilot survey contain	10:15:57	9	progressive video content?		
10:13:10	10	questions about H.264?	10:16:01	10	A. I mentioned that that particular		
10:13:13	11	A. I don't have a copy of the pilot	10:16:03	11	question, QH5A1 and 5A2 was included after		
10:13:29	12	survey here in front of me, but you can see	10:16:08	12	the pilot survey.		
10:13:34	13	right here in the pilot survey, this page	10:16:10	13	Q. So in other words, if I look at		
10:13:36	14	was given where the mention of H.264 is out	10:16:15	14	Exhibits F1 and F2, is it your testimony		
10:13:41	15	here, so. So the answer would be yes.	10:16:21	15	that those are the same as the pilot survey		
10:13:57	16	Q. Other than what you see on	10:16:26	16	except for QH5A1 and A2 which were added		
10:14:00	17	Exhibit 340, did the pilot survey make	10:16:32	17	after the pilot?		
10:14:03	18	reference to H.264?	10:16:34	18	A. I also mentioned that the		
10:14:05	19	A. No, I don't have the pilot	10:16:37	19	conjoint price points were changed. I also		
10:15:21	20	survey questionnaire in front of me, but I	10:16:41	20	mentioned that the question related to the		
10:15:24	21	would -- I would believe that it was, it did	10:16:49	21	year and month in which the model -- the box		
10:15:26	22	include reference to H.264 and the	10:16:51	22	was purchased was changed to just how many		
10:15:29	23	description around.	10:16:54	23	months. So if you look at question QA10,		
10:15:31	24	Q. What were the last words you	10:16:57	24	when was the Xbox Console purchased, the		
10:15:32	25	said?	10:17:00	25	original question was in months, you know,		
Page 64				Page 65			
10:17:02	1	what year and month and the final one was	10:19:20	1	draft survey?		
10:17:08	2	listed in terms of a categorical question.	10:19:20	2	A. Again, the practice here is that		
10:17:15	3	Q. Thank you. Before I mark the	10:19:29	3	moderators who do the pilot testing often		
10:17:53	4	next exhibits, just a couple more questions.	10:19:31	4	brief you. They are aware and comfortable		
10:17:55	5	How did you arrive at the decision to test	10:19:35	5	when they gauge that respondents taking the		
10:17:58	6	-- excuse me, to do a pilot study with 30	10:19:39	6	survey have ease in completing it, have		
10:18:03	7	respondents for each of the surveys?	10:19:45	7	clarity in understanding the questions. In		
10:18:06	8	A. Well, one of my references --	10:19:49	8	the case of, you know, one example, the		
10:18:15	9	you know, in general, the practice is to do	10:19:52	9	ability to actually remember and answer the		
10:18:17	10	between 25 to 50 or 75 depending on the	10:19:54	10	question as well.		
10:18:27	11	availability of respondents, the nature and	10:19:55	11	So when you see after a certain		
10:18:29	12	complexity of the questionnaires and several	10:19:59	12	point in time that there are no comments,		
10:18:31	13	other factors.	10:20:03	13	you feel like, you feel comfortable.		
10:18:32	14	There is no hard-and-fast	10:20:05	14	It's not something that I		
10:18:34	15	requirement, in fact, the book by Shari	10:20:08	15	oversee. For me, the inputs are simply from		
10:18:41	16	Diamond, the reference that I have, also	10:20:12	16	my moderator to say here are the changes		
10:18:44	17	talks about anywhere between 25 to 75 and so	10:20:16	17	suggested -- well, my moderator would come		
10:18:49	18	we chose the number 30. I mean there's no	10:20:24	18	back with comments if there were any changes		
10:18:54	19	-- it's -- it's an arbitrary number	10:20:26	19	suggested by the respondents. And if there		
10:18:57	20	reasonable enough to allow you to gauge	10:20:31	20	weren't any, we would be comfortable with		
10:18:59	21	along the way if there are any comments or	10:20:34	21	launching the survey.		
10:19:02	22	questions or any changes that need to be	10:20:36	22	Q. Did Ms. Pasternack or anybody		
10:19:04	23	made, and that's basically how we chose it.	10:20:38	23	else ask any of the 60 respondents if they		
10:19:13	24	Q. How do you know when you have	10:20:41	24	knew what 802.11 was?		
10:19:14	25	done enough pilot testing of a particular	10:20:44	25	A. I am not aware of that.		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 66				Page 67			
10:20:49	1	Q. Did they ask anyone if they	10:22:22	1	exhibit, a letter dated August 3,		
10:20:53	2	understood what H.264 was?	10:22:24	2	2012, to myself, from Mr. Schoenhard.		
10:20:55	3	A. Again, I'm not aware of that.	10:22:41	3	(PX Exhibit 341 for		
10:20:59	4	Q. Did they ask anyone whether they	10:22:41	4	identification, letter dated August 3,		
10:21:04	5	understood what MBAFF was?	10:22:41	5	2012, to Ms. Thayer from Mr.		
10:21:06	6	A. That question was not pilot	10:22:46	6	Schoenhard.)		
10:21:09	7	tested.	10:22:46	7	Q. Have you seen this document		
10:21:09	8	Q. Exhibit 340 instructs "Probe by	10:22:47	8	before?		
10:21:27	9	asking was there anything else?" Do you	10:23:32	9	A. Yes, after my -- after my		
10:21:31	10	know whether or not any of the respondents	10:23:33	10	report. Again, I haven't seen -- I don't		
10:21:35	11	were probed by Ms. Pasternack or anyone else	10:23:35	11	recall seeing the exact letter, but some of		
10:21:38	12	with respect to the pilot survey?	10:23:40	12	this information was given by my field team,		
10:21:43	13	A. See this is -- I'm not aware of	10:23:40	13	yes.		
10:21:48	14	that. This is a qualitative kind of	10:23:48	14	Q. Do you know who from your field		
10:21:49	15	exploratory exercise. This is done by	10:23:49	15	team provided this information?		
10:21:52	16	trained moderators. If, you know, they	10:24:18	16	A. That would be Lia Pasternack		
10:21:55	17	probe and they got something that needed to	10:24:21	17	pointing out to the use of Authentic		
10:21:57	18	be changed, I would have been briefed about	10:24:22	18	Response here, because they were the ones		
10:22:00	19	it. So for me, one way or the other, this	10:24:24	19	that were used to provide us with a sample		
10:22:04	20	is not meant to be a conclusive survey, this	10:24:27	20	for conducting the survey.		
10:22:07	21	is meant to be largely guidance on what	10:24:29	21	Q. When was Authentic Response		
10:22:10	22	people understood, what was not clear, you	10:24:32	22	first contacted with respect to this survey?		
10:22:12	23	know, what were issues with the task that	10:24:35	23	A. I would -- I don't remember the		
10:22:14	24	they were completing.	10:24:38	24	exact date, but I would expect just around		
10:22:20	25	MS. THAYER: Let's mark the next	10:24:40	25	the time we were engaged, just immediately		
Page 68				Page 69			
10:24:42	1	after we were engaged Authentic Response	10:26:48	1	well. Like Microsoft Xbox would be another		
10:24:45	2	would have been reached out to, to indicate	10:26:52	2	one, if they checked on that. I mean again,		
10:24:51	3	that we were, you know, would need them to	10:26:55	3	the original Word document actually has		
10:24:56	4	provide us with sample and all the details,	10:26:57	4	programming instructions and everything and		
10:24:59	5	yes.	10:27:01	5	I don't have that here in front of me to		
10:24:59	6	Q. When was the invitation sent out	10:27:02	6	tell you exactly which ones were screened		
10:25:02	7	to the Authentic Response panel to	10:27:06	7	out.		
10:25:05	8	participate in the survey?	10:27:07	8	Q. How did you go about deciding		
10:25:06	9	A. The -- I'm not -- I'm not aware	10:27:08	9	which ones to screen and which not to		
10:25:11	10	of the exact dates. Again, that's part of	10:27:11	10	screen?		
10:25:13	11	the process. When the survey's programmed,	10:27:11	11	A. Well, typically, anyone who had,		
10:25:17	12	the programmers send a certain link, set of	10:27:15	12	who has used the Xbox 360, so anyone		
10:25:21	13	links to Authentic Response and again,	10:27:18	13	checking none of the above would be screened		
10:25:24	14	authentic response may have someone on their	10:27:22	14	in. That means they wouldn't be able to		
10:25:26	15	team as a project manager that receives	10:27:23	15	participate in the survey. Anyone -- sorry,		
10:25:29	16	those links, tests them, and then	10:27:27	16	I need to clarify this. Again, anyone who		
10:25:31	17	essentially launches it to their panel	10:27:31	17	checked Microsoft Xbox would be screened		
10:25:34	18	members.	10:27:33	18	out.		
10:25:40	19	Q. Would you look at on Exhibit F1	10:27:37	19	Q. How about Blu-Ray Players?		
10:25:48	20	question QA7. If a respondent checked any	10:27:40	20	A. They would also be screened out.		
10:26:27	21	of the boxes other than "none of the above"	10:27:50	21	Q. How about computers or printers?		
10:26:31	22	in QA7 were they then disqualified from the	10:27:52	22	A. They would be allowed to		
10:26:33	23	survey?	10:27:56	23	participate.		
10:26:35	24	A. It would have been none of the	10:27:57	24	Q. And why is that?		
10:26:46	25	above and some of the other options there as	10:27:58	25	A. Again, it does not pertain to,		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 70				Page 71			
10:28:06	1	you know, Xbox and therefore they would be	10:29:40	1	recruiting these people to spend 20 minutes		
10:28:08	2	allowed to participate.	10:29:43	2	or whatever amount of time they take, they		
10:28:18	3	Q. What was the gift that was	10:29:48	3	would need to be compensated in some		
10:28:23	4	provided?	10:29:51	4	fashion, so there would be some compensation		
10:28:23	5	A. Authentic Response manages their	10:29:54	5	attached to that. And it is common practice		
10:28:26	6	panels and they provide certain points based	10:29:58	6	to do that.		
10:28:29	7	on the length of the interview. Those	10:30:02	7	Q. Were they given their gift		
10:28:35	8	points are given either in the -- I don't	10:30:04	8	before or after they completed the		
10:28:37	9	know the exact form of the gift that was	10:30:08	9	handwritten, or excuse me, the form that we		
10:28:38	10	given, but they have a certain process. I	10:30:10	10	saw in Exhibit 340?		
10:28:41	11	don't manage that process. But there's an	10:30:12	11	A. Again, I wasn't in the room.		
10:28:43	12	approximate dollar amount that ranges	10:30:13	12	The standard procedures for all of these		
10:28:49	13	somewhere from seven to \$11 for whatever the	10:30:16	13	are, whether it's the points for the online		
10:28:53	14	gift is that they decide.	10:30:19	14	survey or whether it is the, you know, gift		
10:28:54	15	Q. If an individual is screened	10:30:22	15	for participating in a mall intercept		
10:28:57	16	out, does that individual get the gift?	10:30:26	16	survey, they're always given at the end.		
10:28:59	17	A. I need to reread the Authentic	10:30:49	17	Q. Do you know what a speeder is?		
10:29:05	18	Response, but from what I recall from the	10:30:56	18	A. In what context?		
10:29:06	19	top of my understanding, if they're screened	10:31:00	19	Q. In the context of a respondent		
10:29:09	20	out, they are not given that gift.	10:31:03	20	taking a survey?		
10:29:12	21	Q. Were the respondents to the	10:31:03	21	A. If I understand what you're --		
10:29:25	22	pilot survey given a gift?	10:31:08	22	you're saying, it's someone who's probably		
10:29:27	23	A. I don't recall, but the mall	10:31:10	23	taking a survey, you know, rapidly in going		
10:29:35	24	intercept would -- I don't recall the exact	10:31:14	24	through the survey, yes.		
10:29:37	25	amount or what the nature of it. In	10:31:15	25	Q. On the basis of the pilot		
Page 72				Page 73			
10:31:22	1	testing, did you form any sort of estimate	10:32:32	1	rapidly, that represents how they look at		
10:31:25	2	or conclusion about how long approximately	10:32:36	2	things. And not everybody is a speeder		
10:31:28	3	it should take to complete either of the	10:32:38	3	according to your definition.		
10:31:31	4	surveys?	10:32:40	4	Again, and clearly it's		
10:31:32	5	A. No, I did not form and it wasn't	10:32:46	5	reflective of consumers out there, and as a		
10:31:35	6	necessary for me to form those conclusions.	10:32:50	6	result, we don't need to specifically be		
10:31:38	7	Q. Why is that?	10:32:53	7	focused on that.		
10:31:39	8	A. A survey is done online and at	10:32:56	8	Q. So is it irrelevant to you what		
10:31:43	9	someone's home, it reflects how people make	10:33:01	9	the average length of time it took for		
10:31:47	10	purchases. There's a portion of the survey	10:33:06	10	respondents to complete the final survey		
10:31:50	11	that reflects how people make purchases.	10:33:11	11	that's attached to your report?		
10:31:53	12	There are those who make, tend to make them	10:33:12	12	A. When I look at the analysis of		
10:31:56	13	faster or those who deliberate on it for a	10:33:17	13	the report, it's based on respondents who		
10:32:00	14	long time before they make choices.	10:33:22	14	take surveys. There are people who take		
10:32:01	15	There is really no one cutoff or	10:33:24	15	surveys. There are people who tend to take		
10:32:04	16	single answer, and therefore it is	10:33:27	16	-- answer questions quickly. There are		
10:32:05	17	absolutely not necessary for me to set any	10:33:29	17	people who tend to deliberate and answer		
10:32:09	18	parameters around that.	10:33:32	18	questions in a lot slower fashion. So you		
10:32:10	19	Q. Well, if you don't have any	10:33:34	19	get the whole gamut of the spectrum.		
10:32:12	20	notion of how long typically it would take	10:33:37	20	When you analyze and you report,		
10:32:14	21	to take a survey, how could you identify a	10:33:38	21	you know, summary of results and you have a		
10:32:16	22	speeder from a normal survey taker?	10:33:41	22	large enough sample, you're really		
10:32:20	23	A. Well, as I said, I mean it's --	10:33:43	23	reflecting more the average, you're		
10:32:25	24	the survey is taken by people and they're	10:33:45	24	reflecting what the mean is.		
10:32:29	25	sitting at home. And if they took it	10:33:47	25	As a result, there's really no		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 74				Page 75			
10:33:49	1	reason to look at those speeders	10:36:01	1	general, the content here in the first three		
10:33:52	2	exclusively.	10:36:03	2	paragraphs are accurate. I mean there's		
10:34:13	3	MS. THAYER: Let's mark as the	10:36:06	3	nothing there withholding the content there		
10:34:15	4	next exhibit, 342, a letter dated	10:36:09	4	and some of these other items, again, are		
10:34:20	5	August 7, 2012, to me from Mr.	10:36:11	5	accurate.		
10:34:30	6	Schoenhard.	10:36:12	6	Q. On the second page, item 9 and		
10:34:31	7	(PX Exhibit 342 for	10:36:16	7	11 it says "Pre-test interviews were		
10:34:31	8	identification, letter dated August 7,	10:36:18	8	conducted by Lia Pasternack." Do you see		
10:34:31	9	2012, to Ms. Thayer from Mr.	10:36:22	9	that?		
10:34:38	10	Schoenhard.)	10:36:22	10	A. Yes.		
10:34:38	11	Q. Are you familiar with this	10:36:22	11	Q. Was there any information about		
10:34:40	12	exhibit?	10:36:31	12	any pre-test interview that Ms. Pasternack		
10:34:44	13	A. So I haven't actually seen the	10:36:35	13	conducted that you haven't already provided		
10:35:07	14	letter itself, but in terms of the contents	10:36:38	14	me here this morning?		
10:35:09	15	or any clarifications, you know, I would	10:36:47	15	A. I think I mentioned that QH5A1		
10:35:15	16	have provided it if counsel had asked me or	10:36:51	16	and 5A2 were not pre-tested. They were, you		
10:35:17	17	any such thing.	10:36:55	17	know, the questions they asked were very		
10:35:27	18	MS. THAYER: Can I hear the last	10:36:57	18	simple. I didn't need to pre-test those.		
10:35:29	19	half of his answer.	10:37:00	19	I've, to the best of my		
10:35:30	20	(Record read as requested.)	10:37:06	20	knowledge and my memory, I've given you,		
10:35:30	21	Q. Do you know whether the	10:37:10	21	I've told you everything that I know.		
10:35:31	22	information in this document is accurate?	10:37:11	22	I was debriefed by Lia		
10:35:39	23	MS. HOANG: Objection; form.	10:37:14	23	Pasternack and those, the debriefings from		
10:35:57	24	A. So not going through every	10:37:18	24	her were used in finalizing the survey that		
10:35:59	25	single table and exhibits here, but in	10:37:23	25	was fielded, so.		
Page 76				Page 77			
10:37:28	1	Q. How did you conclude that you	10:38:56	1	being asked out there, so there's no need to		
10:37:29	2	did not need to pre-test questions QA51 and	10:38:59	2	pre-test that.		
10:37:35	3	2?	10:39:00	3	Terms like interlaced, MBAFF,		
10:37:36	4	A. So QA5 -- QH5A1 and 5A2 so if I	10:39:05	4	these are similar terms like Wi-Fi, and		
10:37:45	5	can look back at my survey for a second,	10:39:08	5	they're technical. Some may know them, some		
10:37:48	6	Exhibit F2. The question itself is written	10:39:10	6	may not know them.		
10:38:00	7	in a very simple language in terms of the	10:39:11	7	Q. If counsel had provided you		
10:38:07	8	words used, "Please select the types of	10:39:13	8	those questions before you did your pilot		
10:38:09	9	video content you have viewed on your Xbox	10:39:17	9	study, would you have included them in the		
10:38:13	10	Console."	10:39:19	10	pre-test?		
10:38:14	11	The question has been asked in a	10:39:19	11	A. I would have included them in my		
10:38:16	12	very simple manner and similar to some of	10:39:21	12	pre-test.		
10:38:23	13	the other questions that have been asked.	10:39:21	13	Q. Why?		
10:38:25	14	In the choices the respondent	10:39:22	14	A. Because they were given to me --		
10:38:26	15	has been given the option of saying not	10:39:24	15	they would have been given -- they would		
10:38:28	16	sure. If they have, if they don't	10:39:25	16	have been given initially and I would have		
10:38:31	17	understand interlaced, they're not aware of	10:39:28	17	included them. And one would have to ask,		
10:38:33	18	progressive, they're not aware of	10:39:33	18	you know, was it a question that people		
10:38:35	19	interlaced, they do have the option of	10:39:35	19	didn't understand or was it the options		
10:38:37	20	checking not sure.	10:39:37	20	given to them.		
10:38:38	21	The same is the case with QH5A2,	10:39:38	21	If the options they didn't		
10:38:42	22	the language of the words used out there,	10:39:39	22	understand, that would be reflected in the		
10:38:47	23	you know, in survey design we are -- we	10:39:43	23	answers that they provide because they would		
10:38:49	24	design the question in very simple terms and	10:39:45	24	say I'm not sure. That would indicate, you		
10:38:52	25	that's basically very simple language that's	10:39:47	25	know, very well that there's a big		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 78				Page 79			
10:39:50	1	percentage in the market, or a small	10:41:03	1	screener questions asked that question, so		
10:39:52	2	percentage of the market who don't	10:41:05	2	how do you know that you were interviewing a		
10:39:53	3	understand, who don't know what they're	10:41:07	3	group that plays Xbox games?		
10:39:56	4	getting and that there are connoisseurs who	10:41:14	4	A. I used the term, you know,		
10:39:59	5	know what they're getting. So as far as the	10:41:15	5	played Xbox games loosely, but you can see		
10:40:02	6	question itself is concerned, it would be	10:41:18	6	in QA9, the QA9 question clearly says you		
10:40:03	7	included in the pre-test and I would expect	10:41:23	7	indicated that you own or played with a		
10:40:05	8	that that question, as it stands, would be	10:41:28	8	Microsoft Xbox Console. So there's a QA8		
10:40:07	9	very much understood by everybody the way it	10:41:32	9	question that asks them whether they play		
10:40:09	10	is.	10:41:36	10	on, own or play video games on the Xbox		
10:40:09	11	It's very reflective of some of	10:41:40	11	Console, so we do ask those people.		
10:40:11	12	the other questions we asked.	10:41:42	12	Q. What question are you reading		
10:40:12	13	Q. So in your experience,	10:41:45	13	where it asks about playing games on a		
10:40:15	14	respondents to surveys would always check	10:41:47	14	console?		
10:40:20	15	not sure if they don't understand the	10:41:48	15	A. I'm sorry. So let me repeat		
10:40:23	16	answers?	10:41:49	16	that. Exhibit F1, let us look at QA8, we		
10:40:23	17	A. Absolutely. I mean they --	10:41:59	17	ask "Please indicate which of the following		
10:40:26	18	especially if you're a group like this, the	10:42:00	18	video game consoles you currently own."		
10:40:28	19	people who play Xbox games, who are online	10:42:04	19	Q. That doesn't say what video		
10:40:31	20	and who are, you know, are technologically	10:42:07	20	games, whether you play Xbox games, does it?		
10:40:39	21	savvier, you're more likely to get them to	10:42:09	21	A. That question doesn't. And		
10:40:42	22	answer not sure if they don't understand	10:42:11	22	obviously the questions about, we also ask		
10:40:44	23	what it is, if the...	10:42:18	23	people -- so it says whether they own it.		
10:40:57	24	Q. You just testified it was a	10:42:22	24	So people who owned it have made purchasing		
10:40:59	25	group who plays Xbox games, but none of your	10:42:25	25	decisions at some point or the other to		
Page 80				Page 81			
10:42:28	1	purchase an Xbox Console. Some of them may	10:43:41	1	there are those who probably are just users		
10:42:31	2	be -- may be knowledgeable enough to answer	10:43:46	2	and gamers and then there are those who know		
10:42:35	3	the question related to the MBAFF or	10:43:50	3	more about what the game console is built		
10:42:39	4	interlaced and progressive and some of them	10:43:53	4	off and what it makes and what it means.		
10:42:42	5	may not be. But the fact that they own it,	10:43:55	5	Q. I own an Xbox. I have never		
10:42:44	6	they are in a group of people that are	10:44:02	6	used an Xbox. Am I correct that I would		
10:42:48	7	technically more, you know, can --	10:44:05	7	have qualified both to be interviewed by Dr.		
10:42:51	8	technically more knowledgeable, let me put	10:44:10	8	Pasternack and for the initial set of		
10:42:54	9	it this way. It's not an absolute -- there	10:44:14	9	interviews and for the pilot study?		
10:42:56	10	are varying ranges of people who have	10:44:23	10	A. Yes.		
10:42:59	11	technology -- technically more knowledgeable	10:44:23	11	Q. Do you have any data or evidence		
10:43:01	12	as well, and...	10:44:25	12	that I am technically more knowledgeable		
10:43:03	13	Q. What is the basis for your	10:44:28	13	than the typical consumer about video		
10:43:08	14	statement that the group of individuals who	10:44:34	14	content or downloading video content?		
10:43:09	15	own video game consoles are technically more	10:44:43	15	A. I don't, and it does not affect		
10:43:13	16	knowledgeable than others?	10:44:45	16	my results in any way.		
10:43:15	17	A. I think I want to go back to my	10:45:00	17	MS. THAYER: Let's mark as the		
10:43:18	18	statement and make sure that I'm phrasing	10:45:01	18	next exhibit, 343, a letter dated		
10:43:20	19	this correctly. I never said that they are	10:45:03	19	August 21, 2012, to me, from Mr. Shown		
10:43:22	20	all. If you -- if there was a scale to	10:45:06	20	hard.		
10:43:25	21	check on someone in terms of how	10:45:07	21	(PX Exhibit 343 for		
10:43:27	22	knowledgeable they're technical --	10:45:07	22	identification, letter dated August		
10:43:30	23	technically, you would expect that this	10:45:07	23	21, 2012, to Ms. Thayer from Mr.		
10:43:32	24	group would be more knowledgeable than those	10:45:23	24	Schoenhard.)		
10:43:35	25	who are not. So -- and even amongst them	10:45:23	25	Q. Have you seen this document		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

		Page 82		Page 83
10:45:24	1	before?	10:47:35	1
10:45:42	2	A. No, I have not seen this	10:47:38	2
10:45:43	3	document before.	10:47:38	3
10:45:44	4	Q. Do you know whether -- strike	10:47:38	4
10:45:56	5	that.	10:48:13	5
10:45:57	6	Are you familiar with the files	10:48:13	6
10:45:58	7	that are listed in this document?	10:48:14	7
10:46:03	8	A. I'm familiar with the files that	10:48:14	8
10:46:15	9	are listed on this document.	10:48:15	9
10:46:16	10	Q. Are these files that were	10:48:19	10
10:46:28	11	created during the research that you	10:48:23	11
10:46:36	12	supervised?	10:48:23	12
10:46:36	13	A. I would expect that these would	10:48:24	13
10:46:45	14	be files that would have been created during	10:48:25	14
10:46:48	15	the research that I supervised, yes.	10:48:27	15
10:46:52	16	Q. These weren't recreated after	10:48:28	16
10:46:56	17	you prepared your report, were they?	10:48:31	17
10:46:58	18	A. No, because some of these files	10:48:31	18
10:47:00	19	would have been used in the analysis of what	10:48:33	19
10:47:03	20	we -- we did. So someone could take the	10:48:34	20
10:47:08	21	.cho file and have gone through the same	10:48:37	21
10:47:10	22	analysis that I've done here and produced	10:48:39	22
10:47:12	23	the same results that I produced.	10:48:40	23
10:47:28	24	MS. THAYER: Let's mark as	10:48:40	24
10:47:29	25	Exhibit 344 a letter dated August 24,	10:48:43	25
		Page 84		Page 85
10:48:45	1	A. They were all created before the	10:50:17	1
10:48:47	2	report was provided, yes.	10:50:19	2
10:48:48	3	Q. There in the right-hand column	10:50:20	3
10:48:52	4	there's some text. Did you provide that	10:50:22	4
10:48:56	5	text to counsel?	10:50:25	5
10:48:57	6	A. I verbally provided the text to	10:50:28	6
10:49:01	7	counsel.	10:50:29	7
10:49:02	8	Q. Where it says "not relevant,"	11:01:21	8
10:49:06	9	did you provide that information to counsel?	11:01:23	9
10:49:12	10	A. Yes.	11:01:25	10
10:49:12	11	Q. In what sense was the file	11:01:28	11
10:49:16	12	5007A_CBC.log not relevant in your view?	11:01:34	12
10:49:23	13	A. That file is an output from the	11:01:34	13
10:49:30	14	CBC/HB software, so it comes from the CBC/HB	11:01:37	14
10:49:37	15	software and it is not something that I	11:01:41	15
10:49:38	16	produce. It is what the software produces.	11:01:43	16
10:49:42	17	And it is in that context that I said it is	11:02:03	17
10:49:44	18	not relevant.	11:02:10	18
10:49:44	19	Q. Is this something you analyzed?	11:02:13	19
10:49:48	20	A. The .log file is not something	11:02:14	20
10:49:57	21	that I use in guiding my results and is not	11:02:22	21
10:49:59	22	required to guide my results in any fashion.	11:02:28	22
10:50:10	23	Can I request a break here?	11:02:32	23
10:50:14	24	MS. THAYER: Oh, of course.	11:02:36	24
10:50:16	25	THE VIDEOGRAPHER: One moment,	11:02:40	25

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 86				Page 87			
11:02:48	1	focus on things that really mattered and how	11:04:23	1	THE REPORTER: Yes?		
11:02:52	2	they made those -- those purchase decisions.	11:04:23	2	A. Yes.		
11:02:55	3	Q. Did the answers to these	11:04:24	3	Q. Thank you, we just always need		
11:02:57	4	questions affect the, or alter any of the	11:04:29	4	to have an audible answer for our court		
11:03:10	5	choices that were ultimately presented to	11:04:31	5	reporter.		
11:03:13	6	respondents in the final survey?	11:04:33	6	Am I correct that the attributes		
11:03:15	7	A. In the discrete choice exercise,	11:04:40	7	contained on each of those pages did not		
11:03:21	8	the CBC choice based conjoint exercise, the	11:04:43	8	change between the pilot study and the final		
11:03:25	9	attributes that we included in there were	11:04:48	9	survey?		
11:03:27	10	reflective of the ones that people said they	11:04:49	10	A. That's correct.		
11:03:30	11	would use more often. So and we -- it	11:04:49	11	Q. What was the source of the		
11:03:36	12	helped confirm that exercise. It does not	11:05:03	12	attributes that are listed on the second		
11:03:39	13	affect the results because when they make	11:05:05	13	page of Exhibit 340?		
11:03:42	14	the tradeoff exercise it's assuming all else	11:05:07	14	A. The source was the initial		
11:03:46	15	that is not shown there to be held constant.	11:05:14	15	conversations that were there, plus a review		
11:03:49	16	So therefore, you know, something like an	11:05:19	16	of various websites like bestbuy.com, to see		
11:03:51	17	optical audio port is assumed to be constant	11:05:28	17	various Xbox 360s and what are described or		
11:03:56	18	when they make those tradeoffs. It only	11:05:32	18	not described over there. So it was		
11:03:58	19	focuses on things that mattered to them.	11:05:35	19	designed based on -- and then it was		
11:04:00	20	Q. But just so I'm clear, the two	11:05:37	20	fine-tuned based on those initial		
11:04:04	21	surveys that we have as Exhibit F1 and F2	11:05:40	21	conversations.		
11:04:07	22	have a number of pages where the respondent	11:06:05	22	MS. THAYER: Let's mark as		
11:04:14	23	selects one of three possible Xbox	11:06:06	23	Exhibit 345 errata to July 24th expert		
11:04:20	24	configurations, right?	11:06:14	24	report of Dr. R. Sukumar.		
11:04:20	25	A. Mm-hmm.	11:06:15	25	(PX Exhibit 345 for		
Page 88				Page 89			
11:06:15	1	identification, errata to July 24th	11:07:53	1	mistake in the way the cursor was placed in		
11:06:36	2	expert report of Dr. R. Sukumar.)	11:07:56	2	defining these cells, and I reported that		
11:06:36	3	Q. Dr. Sukumar, are you familiar	11:08:00	3	immediately to counsel.		
11:06:37	4	with this exhibit?	11:08:02	4	Q. Can you turn in Exhibit 338 to		
11:06:39	5	A. Yes, I am.	11:08:09	5	table 9.		
11:06:40	6	Q. When in paragraph 2 -- strike	11:08:19	6	A. Yes.		
11:06:45	7	that.	11:08:19	7	Q. Sorry, 338 is the original		
11:06:46	8	In paragraph 2 you refer to a	11:08:21	8	report. At the next break I'll try and get		
11:06:48	9	discovery about an inadvertent clerical	11:08:29	9	you a clip that we can put on the side so		
11:06:50	10	error. Do you see that?	11:08:31	10	that's easier to manage.		
11:06:51	11	A. Yes.	11:08:40	11	What is it about table 9 that		
11:06:53	12	Q. When did you discover the error?	11:08:44	12	you saw when preparing for your deposition		
11:06:59	13	A. I discovered that error when I	11:08:48	13	that suggested that there was an inadvertent		
11:07:02	14	was reviewing my report in preparation for	11:08:50	14	clerical error?		
11:07:08	15	this deposition.	11:08:51	15	A. Well, I looked at the word		
11:07:09	16	Q. Can you give me a day?	11:08:56	16	progressive, I was looking at the		
11:07:20	17	A. Oh, I want to say approximately	11:09:00	17	questionnaire, and I noticed that we had		
11:07:23	18	sometime last week, middle of last week.	11:09:01	18	both interlaced and progressive and I had		
11:07:27	19	Q. What exactly were you looking at	11:09:04	19	not reported interlaced. So I went back to		
11:07:29	20	when you discovered the error?	11:09:06	20	the spreadsheet to see what was the		
11:07:30	21	A. Well I was just -- I was reading	11:09:09	21	percentage of interlaced and that's when I		
11:07:33	22	through the table and looked at the	11:09:15	22	identified the error.		
11:07:39	23	computation of these numbers and noticed	11:09:17	23	Q. What spreadsheet did you look at		
11:07:42	24	that there was the, you know, two cells were	11:09:24	24	that suggested to you that there was an		
11:07:48	25	wrongly added and it might have been a	11:09:25	25	error with respect to the progressive		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 90				Page 91			
11:09:28	1	calculation?		11:10:35	1	Q. Does the spreadsheet contain the	
11:09:33	2	MS. HOANG: Objection; form;		11:10:39	2	numbers 30.3 percent and 33.3 percent or	
11:09:35	3	misstates evidence.		11:10:44	3	does it contain some other sort of data that	
11:09:36	4	A. The spreadsheet with all of the		11:10:46	4	then gets manipulated to calculate those	
11:09:39	5	data that, I've got to remember exactly what		11:10:49	5	percentages?	
11:09:45	6	that file is, but that was given.		11:10:50	6	A. It contains the individual	
11:09:51	7	Q. It was given to whom?		11:10:59	7	respondent's answers which when counted will	
11:09:52	8	A. It was given as part of the		11:11:01	8	give you the 30.3 or the 33.3.	
11:09:54	9	report initially with all the native format		11:11:14	9	Q. So how did the mistake occur	
11:09:58	10	of the data.		11:11:16	10	that generated the incorrect number,	
11:09:59	11	Q. Do you have any idea of what the		11:11:18	11	percentage for not sure and progressive in	
11:10:00	12	name of the file is that I could consult to		11:11:21	12	the original table 9? How did that occur?	
11:10:05	13	determine that the original table line		11:11:29	13	A. As I said, the way, the word	
11:10:08	14	figure for progressive percentage is		11:11:32	14	progressive was asked in two questions, so	
11:10:11	15	incorrect?		11:11:34	15	it was the summation of both of those, so	
11:10:12	16	A. I don't recall the file name,		11:11:40	16	when counting it, the counting would have	
11:10:14	17	but I can find out and let you know.		11:11:42	17	been done, and I don't recall exactly, as I	
11:10:17	18	Q. Is it mentioned in any of the		11:11:44	18	said, when I checked back, I noticed that	
11:10:18	19	letters that we've been going through here?		11:11:46	19	interlaced -- when I started to look at my	
11:10:20	20	A. I'm sure it is mentioned, but I		11:11:49	20	report I noticed that interlaced was not	
11:10:24	21	need to go back and look at and identify		11:11:51	21	there. I went back to getting the results	
11:10:26	22	specifically which one.		11:11:53	22	for interlaced should I be asked today about	
11:10:26	23	Q. Well, does this spreadsheet --		11:11:55	23	what those numbers were, and I did a count	
11:10:31	24	A. I said this is raw data. Sorry,		11:11:58	24	in the spreadsheet, that's when I found that	
11:10:33	25	go ahead.		11:12:00	25	the progressive number was incorrect and it	
Page 92				Page 93			
11:12:06	1	actually accounted for the progressive in		11:13:45	1	If you'll look at Exhibit 342,	
11:12:11	2	both questions.		11:13:47	2	which is the August 7 letter to myself from	
11:12:14	3	Q. When you say both questions,		11:13:50	3	Mr. Schoenhard.	
11:12:16	4	what are you referring to?		11:13:54	4	A. Give me one second, please.	
11:12:17	5	A. There's progressive in QH5A1 and		11:14:13	5	Q. If you look at the second page,	
11:12:20	6	also in QH5A2.		11:14:14	6	there's an item 18.	
11:12:33	7	Q. So are you saying it was		11:14:17	7	A. Are we looking at the same?	
11:12:34	8	incorrectly, those two questions were		11:14:19	8	Q. August 7.	
11:12:36	9	incorrectly added previously where they		11:14:20	9	A. I'm sorry, 342, okay.	
11:12:38	10	should not have been added?		11:14:28	10	Q. The last bullet.	
11:12:39	11	A. Something -- that's correct.		11:14:30	11	A. Yes.	
11:12:40	12	Something of that sort. When doing that		11:14:30	12	Q. This states that confidence	
11:12:41	13	analysis that error happened. When doing		11:14:35	13	interval estimates were calculated as	
11:12:45	14	the count, the summation led to the		11:14:38	14	documented in a book. Do you see that?	
11:12:48	15	progressive number being at 54 percent when		11:14:41	15	A. Yes.	
11:12:51	16	the progressive number should have only been		11:14:41	16	Q. I have that textbook here today.	
11:12:54	17	33.3 percent for QH5A1.		11:14:48	17	Did you rely on this textbook as the basis	
11:12:57	18	Q. What led to the error in the not		11:14:53	18	for calculating confidence interval	
11:13:00	19	sure row?		11:14:57	19	estimates?	
11:13:01	20	A. I think it was a similar, not		11:14:57	20	A. So that -- I relied on this	
11:13:06	21	sure from QH5A1 and not sure from QH5A2.		11:15:02	21	book. In general all statistics, anybody	
11:13:13	22	It's a counting error that happened out		11:15:07	22	who does a Ph.D. goes through that book and	
11:13:15	23	there.		11:15:09	23	we have used this book extensively. The	
11:13:24	24	Q. Thank you, I'm done with that		11:15:13	24	formulas used, for example, in defining what	
11:13:44	25	one for now.		11:15:16	25	the confidence interval range would be to	

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 94				Page 95			
11:15:20	1	expect on any question that is in my report	11:17:29	1	those two equations were equations that you		
11:15:23	2	are standard calculations that are available	11:17:32	2	employed in computing the lower and upper		
11:15:25	3	in that book.	11:17:36	3	confidence levels that are in tables 11 and		
11:15:28	4	Q. Could you please point out to me	11:17:40	4	15 of your report?		
11:15:29	5	what you relied on in this textbook as a	11:17:41	5	A. Sorry, in my report, to be again		
11:15:32	6	basis for calculating confidence intervals	11:17:46	6	precise about it, my report I state a broad		
11:15:35	7	as set forth in your report.	11:17:48	7	range of confidence intervals that can be		
11:15:39	8	A. Okay. This is going to take	11:17:52	8	expected given the sample sizes that we		
11:15:48	9	some time, you know, because I was being --	11:17:55	9	have. They take into account the largest		
11:16:50	10	okay, so one example is equation 16 on page	11:17:57	10	possible confidence interval that you can		
11:16:57	11	394 or equation 3 -- equation 17 on page	11:17:59	11	expect and they're stated in the report.		
11:17:07	12	395.	11:18:02	12	And the computations of those		
11:17:09	13	MS. THAYER: Just so the record	11:18:05	13	would involve these equations that I just		
11:17:10	14	is clear, and counsel, if it's okay	11:18:08	14	mentioned.		
11:17:12	15	with you, I'll make a copy of these	11:18:08	15	Q. All right. Let me then just		
11:17:14	16	pages just so we have a record to	11:18:13	16	make sure I'm clear about your answer before		
11:17:15	17	attach to the deposition, but I don't	11:18:16	17	we go on with that book. Could you turn to		
11:17:17	18	want to -- until we get done with the	11:18:18	18	your report, the original report, the page		
11:17:19	19	book I didn't want to copy the whole	11:18:28	19	7, paragraph 1.		
11:17:21	20	thing.	11:18:32	20	A. Give me one second.		
11:17:22	21	MS. HOANG: That's fine. If you	11:18:34	21	Q. Yes, I'm sorry, there are lots		
11:17:24	22	could also copy the copyright page.	11:18:36	22	of exhibits.		
11:17:27	23	MS. THAYER: Of course, of	11:18:36	23	A. I just want to make sure I'm		
11:17:28	24	course.	11:18:38	24	not -- right.		
11:17:28	25	Q. So to be clear, are you saying	11:18:55	25	Q. So there's a statement in		
Page 96				Page 97			
11:18:57	1	paragraph 1 about statistical confidence	11:20:18	1	MS. HOANG: Take the time you		
11:19:00	2	intervals can be expected to be within a	11:20:19	2	need.		
11:19:01	3	range, do you see that?	11:20:19	3	A. So I may need some time here to		
11:19:02	4	A. That's correct.	11:20:21	4	make sure that I pulled the right --		
11:19:03	5	Q. Is that the comment that you	11:20:23	5	Q. That's fine.		
11:19:04	6	were just referring to when you said that	11:22:13	6	A. So what I'm specifically looking		
11:19:09	7	you can utilize equation 16 and 17 to	11:22:14	7	for, just so you know so I'm not just		
11:19:13	8	calculate a confidence interval for a sample	11:22:17	8	randomly turning pages, and I don't know		
11:19:17	9	of this size?	11:22:18	9	what edition of the book this might be, I'm		
11:19:18	10	A. That's correct. And	11:22:23	10	specifically looking for confidence		
11:19:22	11	additionally, there's another place where we	11:22:27	11	intervals for random variables that are		
11:19:23	12	mention confidence intervals, which is	11:22:32	12	ratios and how to do it is described in this		
11:19:25	13	around the willingness to pay, and this book	11:22:37	13	book if I'm not -- so pages 180 and 181, it		
11:19:29	14	again is the basis of for developing the	11:23:34	14	says product and quotient of random		
11:19:33	15	confidence intervals for that statistic as	11:23:38	15	variables, those are relevant pages from		
11:19:36	16	well.	11:23:44	16	which the formula used to compute the		
11:19:36	17	Q. For example, table 11 on page	11:23:46	17	confidence interval estimates for the table		
11:19:42	18	11, what did you use from that book to	11:23:59	18	11.		
11:19:46	19	calculate the lower and upper confidence	11:24:01	19	Q. May I see that briefly? I'll		
11:19:50	20	levels reflected in that table?	11:24:04	20	give it right back to you.		
11:19:52	21	A. Let me tell you. Again, these	11:24:05	21	A. Sure.		
11:20:02	22	are complicated formulas, so it's one of	11:24:23	22	MS. THAYER: Just for the		
11:20:04	23	those that the exact page numbers, I mean I	11:24:24	23	record, this is the third edition,		
11:20:12	24	don't remember from the top of my head, but	11:24:26	24	"Introduction to the theory of		
11:20:14	25	I'm --	11:24:28	25	statistics."		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 98				Page 99			
11:24:29	1	Q. On the two pages that you've	11:26:31	1	Bayes theorem.		
11:24:30	2	just directed me to, there are two theorems.	11:26:32	2	Again, so the Bayes approach is		
11:24:35	3	Could you clarify whether you used one or	11:26:37	3	used by the CBC/HB software to come up with		
11:24:37	4	the other or both in calculating the	11:26:48	4	how much -- what is referred to as a part		
11:24:41	5	confidence level, lower and upper confidence	11:26:53	5	worth utilities, to come up with the part		
11:24:45	6	levels in table 11?	11:26:56	6	worth utilities.		
11:24:58	7	A. I can only say it would be	11:26:58	7	MS. HOANG: You want to spell		
11:25:03	8	theorem 4.	11:26:58	8	that for her.		
11:25:06	9	Q. Is your conjoint analysis here	11:26:59	9	A. It's part, p-a, like partial,		
11:25:11	10	based on Bayesian statistics?	11:27:03	10	part, p-a-r-t, worth, w-o-r-t-h, part worth		
11:25:15	11	A. I'm not sure. I'd say it's	11:27:07	11	and utilities. You know, so to come up with		
11:25:21	12	based on a hierarchical Bayesian approach to	11:27:10	12	the part worth utilities.		
11:25:25	13	analyze, to develop the estimates for the	11:27:13	13	So once again, the traditional		
11:25:31	14	part worth utilities.	11:27:15	14	statistical approach allows to take the		
11:25:34	15	Q. What is Bayesian statistics?	11:27:17	15	entire 499 respondents, or 561 respondents		
11:25:38	16	A. So just to -- this is a question	11:27:23	16	and estimate a prior probability, and using		
11:25:46	17	that is like very detailed, so I'm going to	11:27:28	17	those prior probabilities and the data that		
11:25:50	18	take some time to answer this question.	11:27:31	18	we have from each respondent, updates those		
11:25:56	19	Bayesian, Bayesian approach in	11:27:35	19	prior probabilities through an iterative		
11:25:59	20	general is what is referred to as a	11:27:39	20	process to come up with the part worth		
11:26:05	21	nonparametric approach, which means that a	11:27:44	21	utilities.		
11:26:09	22	Bayesian begins with a prior distribution, a	11:27:48	22	And that's what, you know, it		
11:26:15	23	prior probability distribution and based on	11:27:49	23	follows Bayes theorem, so Bayesian analysis		
11:26:20	24	additional data, updates that prior	11:27:54	24	follows Bayes theorem. Here we use the		
11:26:25	25	distribution using what is called as the	11:27:57	25	hierarchical Bayesian approach, which is a		
Page 100				Page 101			
11:27:59	1	two-step approach.	11:29:34	1	So going back to what I showed		
11:28:00	2	Q. How do Bayesian statisticians	11:29:36	2	you on page 181, you're looking at the		
11:28:03	3	typically account for uncertainty in their	11:29:40	3	quotient of two random variables, X divided		
11:28:05	4	calculations?	11:29:44	4	by Y, quotient of two random variables, and		
11:28:08	5	A. The -- it is based on the	11:29:48	5	that random variable is now, you're		
11:28:17	6	sampling from a probability distribution	11:29:53	6	obtaining the confidence interval for that		
11:28:20	7	whose parameters are defined by a model that	11:29:57	7	with the appropriate distributions		
11:28:25	8	is first estimated for all of the	11:30:00	8	associated with the new random variable		
11:28:28	9	respondents.	11:30:04	9	which is the quotient of those two random --		
11:28:31	10	Q. Is that the same thing as a	11:30:07	10	of those two values.		
11:28:33	11	confidence interval?	11:30:08	11	It has got nothing to do with		
11:28:34	12	A. No, it is not the same thing as	11:30:10	12	the Bayesian analysis, because the Bayesian		
11:28:36	13	a confidence interval.	11:30:12	13	analysis provided us with the part worth		
11:28:37	14	Q. So how is it that in your report	11:30:16	14	utilities and it is the part worth utilities		
11:28:43	15	you give confidence intervals for the	11:30:18	15	that are now being used to compute the		
11:28:52	16	weighted MVI -- MVAI, sorry?	11:30:21	16	confidence intervals.		
11:28:55	17	A. So the weighted MVAI is based on	11:30:23	17	Q. Is the theorem 4 that you just		
11:29:00	18	the part worth utilities. So now the part	11:30:26	18	pointed out for us called a large sample		
11:29:03	19	worth utilities that came from the CBC/HB	11:30:29	19	method?		
11:29:09	20	software, these utilities are being used to	11:30:31	20	A. The theorem 4 is reflective of		
11:29:13	21	compute the MVAI. So they're really looking	11:30:36	21	finding the distribution of ratios of random		
11:29:18	22	at this data to compute the ratio of two	11:30:40	22	variables for large samples.		
11:29:23	23	numbers and one is looking at the ratio of	11:30:46	23	Q. Would you agree that it is not		
11:29:27	24	those two numbers being representative, is a	11:30:48	24	an exact formula for any given sample size?		
11:29:33	25	summary statistic.	11:30:52	25	A. It is not an exact for any given		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 102				Page 103			
11:30:57	1	sample size, but it does take into account,	11:32:46	1	identification, Bates stamped		
11:31:00	2	the formula itself takes into account the	11:33:15	2	MOTM-WASH1823_0603547.)		
11:31:03	3	sample size that is used.	11:33:15	3	Q. Dr. Sukumar, does Exhibit 346		
11:31:06	4	Q. Have you ever heard of a	11:33:28	4	pertain to the 802.11 survey and does		
11:31:09	5	Bayesian credibility region?	11:33:33	5	Exhibit 347 pertain to the H.264 survey?		
11:31:13	6	A. The term credibility region is	11:33:37	6	A. So I want to be careful here		
11:31:15	7	used for confidence intervals for what are	11:34:05	7	since I don't have the files in front of me,		
11:31:23	8	strictly Bayesian analyses.	11:34:07	8	I don't know what file names they came from		
11:31:44	9	MS. THAYER: Let's mark as our	11:34:14	9	and I would take your word if you said one		
11:31:46	10	next two exhibits, so we're up to 346	11:34:17	10	-- the first, 346 is for 802.11 and 347 was		
11:32:04	11	and 347. Let me read into the record	11:34:21	11	for H.264, I would take your word for that.		
11:32:05	12	what they are and then I'll give them	11:34:33	12	Q. Well, we'll leave that aside for		
11:32:07	13	to you. So we'll call 346 is a	11:34:37	13	right now, maybe we can run that down with		
11:32:11	14	spreadsheet that I represent, and you	11:34:38	14	another file.		
11:32:16	15	can confirm at the break if you like,	11:34:41	15	Do you know in this file what		
11:32:17	16	was produced as a PDF with Bates	11:34:43	16	the column that's entitled sys_ElapsedTime		
11:32:20	17	number MOTM-WASH1823_0603538.	11:34:50	17	represents?		
11:32:30	18	And Exhibit 347 was produced	11:34:58	18	A. It represents the amount of time		
11:32:34	19	with the Bates number ending 0603547.	11:35:01	19	taken by the respondent to complete the		
11:32:39	20	Let me make sure I give these to	11:35:08	20	conjoint exercise, and I'm not sure from the		
11:32:44	21	you in the right order.	11:35:11	21	top of my head as to how that is represented		
11:32:45	22	(PX Exhibit 346 for	11:35:13	22	in terms of seconds, milliseconds, I'm not		
11:32:45	23	identification, Bates stamped	11:35:17	23	sure, or minutes, I'm not sure exactly --		
11:32:46	24	MOTM-WASH1823_0603538.)	11:35:17	24	Q. Do you --		
11:32:46	25	(PX Exhibit 347 for	11:35:21	25	A. -- what the unit of measurement		
Page 104				Page 105			
11:35:22	1	is.	11:36:51	1	Q. If I wanted to find this manual,		
11:35:23	2	Q. Forgive me for talking over you,	11:36:54	2	do you know what edition or what year would		
11:35:26	3	I try not to do that.	11:36:58	3	be applicable to your --		
11:35:28	4	Do you know when the clock	11:36:58	4	A. The latest --		
11:35:30	5	starts for purposes of this data? In other	11:37:01	5	Q. -- survey?		
11:35:33	6	words, if we look at your report, does it	11:37:02	6	A. The latest -- sorry, I didn't		
11:35:40	7	start when the user types in the code, when	11:37:04	7	mean to speak over you. The latest edition.		
11:35:47	8	the user agrees to the confidentiality	11:37:22	8	Q. Now you mentioned that the		
11:35:50	9	agreement, or does it start when -- after	11:37:23	9	software is used to calculate part worths;		
11:35:55	10	all the screening has taken place? Do you	11:37:27	10	is that right?		
11:35:58	11	have any information on that?	11:37:28	11	A. So can we clarify which software		
11:35:59	12	A. I don't have direct information	11:37:30	12	we're talking about?		
11:36:02	13	here, but some of this would have been in	11:37:31	13	Q. The Sawtooth software.		
11:36:07	14	the CBC manual would discuss at what point	11:37:33	14	A. So Sawtooth Software is the name		
11:36:11	15	they start the clock.	11:37:35	15	of the company. They produce, they have		
11:36:12	16	Q. What CBC manual are you	11:37:40	16	developed and offer multiple software. The		
11:36:15	17	referring to?	11:37:44	17	software that is called CBC, Choice Based		
11:36:15	18	A. It's a Choice Based Conjoint	11:37:51	18	Conjoint, is used for collecting the data.		
11:36:22	19	manual that Sawtooth Software produces.	11:37:54	19	And earlier on today I mentioned		
11:36:33	20	Q. So this is not something that	11:37:56	20	CBC/HB and that software is used to compute		
11:36:38	21	you specifically had requested to be	11:38:05	21	the part worth utilities.		
11:36:43	22	measured in this study, but rather it's	11:38:11	22	Q. What are, and if you need to		
11:36:45	23	something the software typically does?	11:38:18	23	look back to any of -- we can put these		
11:36:47	24	A. The software typically does	11:38:22	24	aside for right now. If you need to look		
11:36:49	25	this. It's a system that produces this.	11:38:25	25	back to any of the files listed in the		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 106				Page 107			
11:38:26	1	letters that we marked earlier, can you	11:40:53	1	example or two but I will not go through		
11:38:29	2	identify for me from those letters the files	11:40:55	2	every one of them. The 5007A_CBC.log,		
11:38:32	3	that are the input files to the CBC/HB	11:41:03	3	_CBC.restart, _sttdev.csv. These are		
11:38:40	4	software?	11:41:11	4	examples of files that come out off the		
11:38:59	5	A. So there's different versions of	11:41:17	5	CBC/HB software. Another example is right		
11:39:03	6	files that can be submitted, or different	11:41:20	6	here, CBC_utilities.csv. These are examples		
11:39:06	7	formats. The formats that we submitted were	11:41:25	7	of those output files.		
11:39:09	8	the .att and the .cho files. So if you look	11:41:30	8	MS. THAYER: Then let's mark as		
11:39:15	9	at exhibit, this is PX 343, that's a letter	11:41:31	9	Exhibit 348 a document that is not		
11:39:19	10	to you, you see the file that says	11:41:33	10	Bates labeled, but it's 38 pages long		
11:39:25	11	5007H_CBC.att, 5007H_CBC.cho. And then the	11:41:39	11	-- it is. I'm sorry, it's		
11:39:34	12	second for the H.264. SO the first one is	11:41:43	12	MOTM-WASH1823_0606223.log. This is		
11:39:38	13	for H.264, the other one is for 802.11.	11:41:53	13	348.		
11:39:43	14	Q. Thank you. Could you also	11:41:53	14	(PX Exhibit 348 for		
11:39:44	15	identify the output files from that	11:41:53	15	identification, Bates stamped		
11:39:47	16	software, the CBC/HB? I think you may have	11:42:11	16	MOTM-WASH 1823_0606223.log.)		
11:39:50	17	already done this, but I just want to make	11:42:11	17	Q. Am I correct that this document		
11:39:52	18	sure that I'm clear.	11:42:14	18	pertains to the H.264 survey?		
11:40:29	19	MS. HOANG: Sorry, could you	11:42:17	19	A. Well looking at the file name		
11:40:30	20	read back the question for me.	11:42:26	20	here, yes, it does pertain to the H.264		
11:40:31	21	(Record read as requested.)	11:42:34	21	survey.		
11:40:32	22	A. So there's, I'm looking at	11:42:34	22	Q. On the first page it has a		
11:40:36	23	Exhibit 344. In the manual for the CBC/HB	11:42:37	23	little chart that says attribute coding		
11:40:46	24	software it details the different output	11:42:39	24	levels. Do you see that?		
11:40:50	25	files. For example, I'm going to take an	11:42:40	25	A. Yes.		
Page 108				Page 109			
11:42:40	1	Q. What does the column levels	11:44:22	1	A. Right.		
11:42:44	2	mean?	11:44:23	2	Q. For purposes of Exhibit 348,		
11:42:44	3	A. It indicates how many levels	11:44:29	3	down at the bottom of the page it talks		
11:42:48	4	were there for each of those attributes.	11:44:31	4	about attribute 1, 2, 3, 4, that sort of		
11:42:51	5	Q. How did you determine the number	11:44:34	5	thing. Am I correct that attribute 1		
11:42:53	6	of levels to use for any given attribute?	11:44:37	6	corresponds with Wi-Fi, or is that not		
11:42:58	7	A. So we have to, to go back to	11:44:39	7	necessarily the case?		
11:43:07	8	looking, you know, talking about how we came	11:44:41	8	A. Yes.		
11:43:09	9	up with the attributes and levels, which is	11:44:52	9	Q. Okay. So if I look at Exhibit		
11:43:13	10	based on the initial interviews, look at	11:44:58	10	340, I see that there are three levels for		
11:43:21	11	what's available across a couple of	11:45:02	11	Wi-Fi. But when I look at 348 I see the		
11:43:23	12	retailers online. That's what is used to	11:45:06	12	number 4. Can you explain to me that		
11:43:27	13	define each attribute. The pilot tests were	11:45:12	13	difference?		
11:43:31	14	done to confirm those, the attributes and	11:45:12	14	A. Sure. So when you looked -- you		
11:43:33	15	the levels. That was programmed in the	11:45:17	15	know, and again this is, what this is doing		
11:43:37	16	survey.	11:45:23	16	is that Wi-Fi presence or absence, is		
11:43:38	17	And what you're seeing out here	11:45:26	17	attribute 14, capability to accept Wi-Fi		
11:43:40	18	is based on the analysis of that .cho file	11:45:29	18	adapter, yes or no. We took that attribute		
11:43:45	19	that we talked in our previous question and	11:45:33	19	and felt, and essentially combined that with		
11:43:48	20	these levels here are essentially coming	11:45:37	20	the Wi-Fi attribute in the actual pilot		
11:43:50	21	right out of that.	11:45:40	21	tests that were done.		
11:43:53	22	Q. Could you look at Exhibit 340,	11:45:41	22	And when we combined that it		
11:43:55	23	which is the pilot test document that we've	11:45:47	23	effectively became four levels and that's		
11:43:58	24	consulted several times. Do you see number	11:45:50	24	why you're seeing that as four levels now.		
11:44:21	25	1, Wi-Fi?	11:45:52	25	Q. So what was the fourth level?		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 110				Page 111			
11:45:54	1	A. The fourth -- so the fourth --	11:47:16	1	that into four levels.		
11:46:02	2	the -- there was no built-in Wi-Fi. Then	11:47:23	2	Q. Turning back to Exhibit 348.		
11:46:06	3	was the presence of the adapter, the Wi-Fi	11:47:28	3	There is a statement under the chart we were		
11:46:11	4	capability except Wi-Fi adapter would be the	11:47:30	4	looking at, "Numbers of parameters to be		
11:46:14	5	second level, and then after that was	11:47:33	5	estimated."		
11:46:16	6	built-in comparable with B/G networks and	11:47:34	6	Do you see that?		
11:46:19	7	built-in comparable with B/G/N networks.	11:47:35	7	A. That's correct.		
11:46:24	8	So the levels here were, were --	11:47:38	8	Q. What is that phrase referring		
11:46:26	9	that were used, I mean this sheet of paper,	11:47:40	9	to?		
11:46:29	10	again, as I said, I did not see this. This	11:47:40	10	A. So that's saying if you look at		
11:46:33	11	is largely a pilot test. What was designed	11:47:45	11	these different attributes and levels, it's		
11:46:36	12	in the actual survey itself that was pilot	11:47:48	12	taking one less than the number of levels		
11:46:38	13	tested included the levels like the way we	11:47:56	13	and the summation of that is equal to 20.		
11:46:40	14	just described it.	11:47:58	14	So it's actually a summation of that would		
11:46:41	15	Q. So those levels did not change	11:48:00	15	be 19 if you include none. The system is		
11:46:44	16	between the pilot test and the final survey?	11:48:02	16	telling you that it had to estimate 20		
11:46:46	17	A. That's right. And it does not	11:48:07	17	variables in there, 20 parameters. Remember		
11:46:54	18	affect my results in any fashion. What	11:48:10	18	we said part worth utilities, so it has to		
11:46:57	19	we're doing out here is in the pilot test	11:48:13	19	estimate 20 part worth utilities as part of		
11:47:00	20	we're looking at do people understand these	11:48:16	20	this process.		
11:47:02	21	attributes and levels, and in the final	11:48:16	21	Q. What does it mean that the		
11:47:05	22	survey, in terms of these different	11:48:18	22	number of constraints to be used is 19?		
11:47:07	23	attributes, we recognize that Wi-Fi and the	11:48:20	23	A. Right, so as part of doing the		
11:47:12	24	ability to accept Wi-Fi adapter are all	11:48:24	24	CBC software runs, there are some		
11:47:14	25	within the same attribute and we combine	11:48:29	25	constraints that, these are meant to be more		
Page 112				Page 113			
11:48:34	1	logical constraints. Because the Bayesian	11:50:10	1	348, at the bottom of page 1, and you can		
11:48:37	2	approach is doing it as an iterative task,	11:50:13	2	see what those constraints are. So it's		
11:48:41	3	these constraints are largely one of logic,	11:50:16	3	essentially saying level 1 of attribute 1		
11:48:44	4	meaning that you want to make sure that the	11:50:19	4	should be, should have a utility that is		
11:48:50	5	utility for a higher price, the part worth	11:50:22	5	greater than level 2. Level 2 should be		
11:48:56	6	utility for a higher price, so take \$499 and	11:50:25	6	greater than level 3. Again, these are		
11:49:00	7	you're looking at the part worth utility for	11:50:27	7	standard logical constraints.		
11:49:02	8	that, that utility ought to be lower than	11:50:31	8	And with regards to price, you		
11:49:06	9	the part worth utility for \$399.	11:50:32	9	can see there level 2 is greater than level		
11:49:10	10	So as a logical sequence,	11:50:36	10	1, which means the lower the price, the		
11:49:14	11	consumers would want to have -- and again,	11:50:38	11	higher the utility, and these are just		
11:49:17	12	it doesn't say that -- it's a constraint	11:50:40	12	simply logical system constraints that have		
11:49:23	13	that hierarchical Bayesian, the Bayesian	11:50:43	13	got -- that apply to the Bayesian process.		
11:49:25	14	approach uses, but it does not restrict it	11:50:47	14	And these are very standard approaches that		
11:49:29	15	from the point of view of what the results	11:50:52	15	are done.		
11:49:32	16	turn out to be. It is using those in terms	11:50:52	16	Q. Am I correct then that you		
11:49:34	17	of just a repeated sampling and the	11:50:56	17	imposed this constraint with respect to		
11:49:36	18	iterative process -- am I going too fast --	11:51:00	18	Wi-Fi that would not permit a respondent to		
11:49:39	19	iterative process that it uses, it is using	11:51:04	19	be indifferent as to whether or not Wi-Fi		
11:49:42	20	it from that. It's simply a logical	11:51:06	20	was present?		
11:49:46	21	constraint.	11:51:07	21	A. So when the respondent makes		
11:49:47	22	Q. What constraint did you impose	11:51:11	22	choices, that respondent could have chosen		
11:49:48	23	on the Wi-Fi attribute, or constraints?	11:51:14	23	consistently not to choose a product with		
11:50:06	24	A. The constraints are given right	11:51:19	24	Wi-Fi and chosen some other product at a		
11:50:08	25	here at the bottom of this page, Exhibit	11:51:24	25	lower price, or it could have said I don't		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 114				Page 115			
11:51:26	1	want to have Wi-Fi at all because I don't	11:52:54	1	-- I mean it's not taking out responses.		
11:51:28	2	need it. That choice could have been done.	11:52:57	2	The measurement is still the same. It is		
11:51:32	3	This is simply a logical thing	11:53:00	3	just taking out the possibility of illogical		
11:51:35	4	from the mathematical perspective, it's a	11:53:03	4	answers that might arise, such as I		
11:51:37	5	logical sequence, so it's got nothing to do	11:53:07	5	under-value money, I under-value higher		
11:51:40	6	with how people really made choices.	11:53:11	6	priced, you know, I give a higher utility to		
11:51:42	7	Q. But if somebody consistently	11:53:15	7	a higher price than I give to a lower price.		
11:51:46	8	selected a choice that didn't involve Wi-Fi,	11:53:29	8	Q. Why would it be illogical for		
11:51:51	9	wouldn't this constraint mean that	11:53:43	9	someone to prefer built-in Wi-Fi compatible		
11:51:55	10	nonetheless that respondent is treated as	11:53:49	10	with B/G networks to built-in Wi-Fi		
11:52:00	11	having greater than zero value for that	11:53:53	11	compatible with N networks? Why is that		
11:52:05	12	attribute?	11:53:57	12	illogical?		
11:52:07	13	A. It would say -- so again, this	11:53:59	13	MS. HOANG: Objection; form;		
11:52:12	14	is an iterative process, it's sampling	11:54:01	14	assumes facts not in evidence.		
11:52:15	15	through that whole distribution. It only	11:54:02	15	A. Again, this is -- you know, data		
11:52:18	16	says that, logically speaking, you don't	11:54:08	16	and mathematics and statistics are such that		
11:52:21	17	want to have something with more features	11:54:14	17	of -- and computers, because this is a		
11:52:25	18	available to have a value less than the one	11:54:15	18	computer-driven process, can yield answers		
11:52:28	19	which has less features available to it.	11:54:20	19	that don't make any sense. And what you're		
11:52:30	20	You could, in my experience, and	11:54:25	20	doing out here is strictly one that is		
11:52:36	21	you could do this without the constraints,	11:54:31	21	suggesting, and there are instances where		
11:52:39	22	and the results, generally speaking, turn	11:54:33	22	even the constraints may be violated, but		
11:52:41	23	out to be very similar. What it is doing is	11:54:37	23	one is suggesting that the estimation		
11:52:47	24	removing illogical constraints, illogical	11:54:38	24	process attempt to look at constraints that		
11:52:51	25	utilities. It is not taking out illogical	11:54:46	25	are more logically sound.		
Page 116				Page 117			
11:54:48	1	So in terms of actual choice	11:56:00	1	that. However, as I said, statistics and		
11:54:50	2	making, if someone may be making choices	11:56:04	2	mathematics, people who do mathematics and		
11:54:55	3	where they don't care about B/G/N networks,	11:56:06	3	statistics blindly often get answers that		
11:54:58	4	then their value for that would	11:56:10	4	are illogical and foolish and one has to be		
11:55:00	5	automatically be close to zero.	11:56:14	5	very careful about making sure that the		
11:55:02	6	So it does not -- it's not -- it	11:56:16	6	machine does not blindly drive the answers.		
11:55:05	7	is taking the logical approach to	11:56:21	7	Q. Exhibit 348 refers to 500		
11:55:08	8	measurement, and what this is doing is this	11:56:25	8	respondents in the middle there. Do you see		
11:55:10	9	is putting a logical approach to the	11:56:27	9	that?		
11:55:14	10	mathematical sampling process that goes on.	11:56:27	10	A. Where is that?		
11:55:17	11	One can take out, in my	11:56:38	11	Q. Page 1, in the middle.		
11:55:19	12	experience one can take out these	11:56:44	12	A. Correct.		
11:55:21	13	constraints and rerun the results and you	11:56:45	13	Q. Your report, I believe, for the		
11:55:28	14	will see that the results are very close to	11:56:46	14	H.264 survey refers to 499 respondents. Can		
11:55:30	15	-- because the sample size is large, the	11:56:51	15	you explain the difference?		
11:55:33	16	model is, fit is considered very good when	11:56:53	16	A. So let me say this. When you go		
11:55:37	17	you look at the RLH data that is there in	11:56:58	17	back to how the process is done, when we hit		
11:55:41	18	the utilities file. You will see that with	11:57:05	18	a number that is good enough to begin to do		
11:55:43	19	or without constraints the results would be	11:57:08	19	analysis, we start -- we tend to indicate		
11:55:43	20	comparable.	11:57:11	20	you want to stop the survey. And the survey		
11:55:47	21	Q. You'd agree with me that the	11:57:15	21	itself doesn't physically stop. What		
11:55:48	22	Sawtooth software does not require you for	11:57:18	22	happens is the data is pulled in order to do		
11:55:51	23	the Wi-Fi attribute to constrain the levels	11:57:22	23	the analysis. So when the first set of data		
11:55:55	24	the way that you have done it here, correct?	11:57:25	24	was pulled to create the earlier tables, all		
11:55:57	25	A. It doesn't require me to do	11:57:28	25	of these tables that are there in the		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 118				Page 119			
11:57:30 1	report, 499 completed surveys were utilized	11:59:08 1	is a file similar to the one that we were	11:59:10 2	looking at in Exhibit 349, but that it	11:59:12 3	pertains to the 802.11 survey?
11:57:35 2	to do that.	11:59:18 4	A. Yes, by looking at the file	11:59:20 5	name, by looking at the attributes and	11:59:26 6	levels, I can confirm that.
11:57:36 3	By the time that the survey from	11:59:26 7	MS. THAYER: I'm about to move	12:00:00 8	on to a new subject.		
11:57:40 4	the CBC -- now the CBC server is different	12:00:02 9	THE WITNESS: Would it be fine	12:00:03 10	if we take a break again?		
11:57:44 5	than the server in which the rest of the	12:00:05 11	MS. THAYER: Yes, I was going to	12:00:07 12	say it's noon. Off the record.		
11:57:47 6	questions are collected. Confirmit is a	12:00:09 13	THE VIDEOGRAPHER: One moment,	12:00:10 14	please. Here now marks the end of		
11:57:50 7	software which is used to ask questions like	12:00:12 15	tape 3 of the deposition of Dr. R.	12:00:15 16	Sukumar. The time is 12 noon, we are		
11:57:52 8	QA1, QA2, QA8, etc., whereas CBC, Sawtooth	12:00:17 17	now off the record.	12:00:19 18	(Luncheon recess: 12:00 p.m.)		
11:57:59 9	Software product is the one that is doing	19					
11:58:01 10	those conjoint experiments.	20					
11:58:02 11	So by the time the data was	21					
11:58:04 12	pulled, we had one more extra respondent.	22					
11:58:08 13	And in all my many years as an expert doing	23					
11:58:12 14	survey research, one extra respondent does	24					
11:58:15 15	not change or alter the results. In fact,	25					
11:58:19 16	if anything, I've never seen results change						
11:58:24 17	with one extra respondent, when you have						
11:58:27 18	that big a number, when you have 500						
11:58:29 19	respondents.						
11:58:34 20	MS. THAYER: Let's mark as						
11:58:35 21	Exhibit 349 MOTM_WASH1823_0606212.log.						
11:58:56 22	(PX Exhibit 349 for						
11:58:56 23	identification, Bates stamped						
11:59:06 24	MOTM_WASH1823_0606212.log.)						
11:59:06 25	Q. You can just confirm that this						
Page 120				Page 121			
13:02:09 1	A F T E R N O O N S E S S I O N	13:05:05 1	Could you just confirm, please,	13:05:07 2	Dr. Sukumar, that I have copied the pages	13:05:09 3	that you were discussing earlier today?
13:04:37 2	1:02 p.m.	4	A. Yes, that's correct.	13:05:12 5	Q. I have one follow-up question	13:05:23 6	for Exhibit 340 which I believe is on the
13:04:37 3	THE VIDEOGRAPHER: Here now	7	top of your stack right now, and you have	13:05:25 8	pointed out that on page 2, with respect to	13:05:27 9	the attribute of price, there are nine
13:04:38 4	marks the beginning of tape 4 of the	10	different levels stated there going from 99	13:05:35 11	up to absent. Oh, sorry, up to 49.99. And	13:05:37 12	in \$50 increments. Do you see that?
13:04:39 5	deposition of Dr. R. Sukumar. The	13:05:41 13	A. It's \$499.99.	13:06:02 14	Q. Right.	13:06:03 15	A. \$50 increments.
13:04:43 6	time is 1:04 p.m., we're back on the	13:05:46 16	Q. Yes. I just wanted to clarify,	13:06:04 17	with respect to the actual survey that the	13:06:05 18	respondents saw for the pilot, were there --
13:04:47 7	record.	13:05:55 19	was price presented in increments of \$50 or	13:06:10 20	\$100?	13:06:18 21	\$100?
8	(PX Exhibit 350 for	13:05:58 22	A. I don't recall exactly, but I do	13:06:26 23	believe that it was given in increments of	13:06:37 24	\$50 and changed in the final survey to be a
9	identification, pages excerpted from	13:05:37 24	\$50 increments.	13:06:42 25	hundred dollars.	13:06:55 25	Again, the 50 or the hundred
10	the book entitled "Introduction to the						
11	theory of statistics.")						
12	RAMAMIRTHAM SUKUMAR,						
13	resumed, having been previously duly						
14	sworn, was examined and testified						
15	further as follows:						
16	CONTINUED EXAMINATION						
17	BY MS. THAYER:						
18	Q. Good afternoon. I have marked						
19	as Exhibit 350 the title page, copyright						
20	page, and then the four pages that were						
21	called out during this morning's testimony						
22	from "Introduction to the theory of						
23	statistics." So that's been marked as						
24	Exhibit 350 so that I didn't have to copy						
25	the whole book.						

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 122				Page 123			
13:06:57	1	doesn't impact. The endpoints that were	13:08:59	1	what I understand is, so is what I used in		
13:07:02	2	chosen were found to be reasonable by	13:09:06	2	the survey in terms of what the Wi-Fi		
13:07:04	3	respondents. The way conjoint works, you're	13:09:09	3	capability of the 802.11 is. So I'm not a		
13:07:11	4	interpolating between those price points.	13:09:16	4	technical expert to have to go into the		
13:07:13	5	So therefore the 50 increment and hundred	13:09:19	5	details of that.		
13:07:17	6	increment is chosen so as to be more	13:09:20	6	Q. Do you know just generally what		
13:07:19	7	realistic with what's out there from --	13:09:22	7	it is?		
13:07:22	8	various products that are available in the	13:09:28	8	A. I know that it is -- it's a		
13:07:23	9	marketplace.	13:09:32	9	standard relevant to, again, as a consumer		
13:07:23	10	Q. What makes you think that the	13:09:36	10	would think about availability of Wi-Fi, or		
13:07:25	11	pilot study had increments of \$50 rather	13:09:37	11	Wi-Fi access, that's what it is.		
13:07:28	12	than a hundred dollars?	13:09:42	12	Q. Do you know what's the		
13:07:29	13	A. I don't recall. As I said, I do	13:09:50	13	difference between 802.11 N and 802.11 B/G?		
13:07:33	14	not have a copy of the pilot link right now	13:09:52	14	A. Again, I'm not a technical		
13:07:38	15	in front of me, so I -- it doesn't -- I	13:10:01	15	expert. From what I understand, N is a, it		
13:07:42	16	don't have it in front of me, so I cannot	13:10:08	16	gives you multiple antennas, wider coverage.		
13:07:45	17	reflect and say for sure what was done. It	13:10:14	17	As far as, you know, the utilities in the		
13:07:49	18	does not impact my results and therefore,	13:10:16	18	report are concerned and the pricing in the		
13:07:53	19	that's why my comment is.	13:10:18	19	reports are concerned you can clearly see		
13:07:57	20	Q. All right. So excuse me for one	13:10:21	20	that people, the consumers don't place much		
13:08:22	21	second. It looks like I left my outline in	13:10:25	21	difference on either just getting B and G or		
13:08:24	22	the other room. That won't work. Okay.	13:10:30	22	B, G and N, that the value that they place		
13:08:48	23	Could you explain to me what the	13:10:33	23	on one versus the other is not very		
13:08:52	24	802.11 standard is?	13:10:35	24	different from the results. I'm not a		
13:08:55	25	A. I'm not a technical expert, and	13:10:35	25	technical expert and I don't want to get		
Page 124				Page 125			
13:10:37	1	into commenting of specifics of what B/G and	13:12:13	1	through the conjoint exercise.		
13:10:40	2	B/G/N mean.	13:12:15	2	Q. Did you define anyplace where		
13:10:42	3	Q. Did you conduct any research to	13:12:21	3	what a B/G network was?		
13:10:44	4	determine whether or not the respondents to	13:12:27	4	A. We define what a B network was		
13:10:46	5	the 802.11 survey knew what the difference	13:12:29	5	in this, and this is, again, Exhibit 338 of		
13:10:51	6	was between B/G or an N network was?	13:12:33	6	my report, Exhibit F1 where we describe what		
13:11:00	7	A. No, we did not conduct any,	13:12:37	7	B supports, what G supports, and then what N		
13:11:05	8	anything explicit. However, we described	13:12:40	8	supports. So when respondents saw the		
13:11:09	9	what Wi-Fi capability meant in the	13:12:46	9	three, the B, G and N, the understanding		
13:11:14	10	attributes out here.	13:12:48	10	would be that you have all three of them		
13:11:17	11	Q. Can you tell me what you're	13:12:52	11	available. If you say any B and G, you just		
13:11:18	12	referring to in that answer?	13:12:55	12	have the two of them available.		
13:11:19	13	A. Sure. I'm looking at Exhibit F1	13:12:56	13	Q. Did you define that anywhere,		
13:11:23	14	off -- excuse me, sorry. Deposition Exhibit	13:12:59	14	what was meant by B/G or B/G/N?		
13:11:29	15	number 338, Exhibit F1, this would be in my	13:13:05	15	A. No, it wasn't explicitly		
13:11:36	16	report, in which we describe Wi-Fi as being	13:13:16	16	defined. But again, in the levels it's		
13:11:47	17	built-in or external wireless networking	13:13:18	17	clear, compatible with both, with B and G		
13:11:50	18	capability, where B supports bandwidth up to	13:13:21	18	networks, or compatible with B/G/N networks.		
13:11:53	19	11 megabits, G supports bandwidth up to 54	13:13:26	19	Q. Was there a reason that you did		
13:12:00	20	megabits, and wireless N supports higher	13:13:28	20	not define or use this 802.11 standard in		
13:12:01	21	bandwidth and uses multiple wireless signals	13:13:35	21	the survey?		
13:12:04	22	and antennas.	13:13:37	22	MS. HOANG: Objection; form.		
13:12:05	23	So this description was shown	13:13:39	23	A. I'm not sure what you mean by		
13:12:07	24	and people, when I say, respondents, survey	13:13:41	24	802.11 standard.		
13:12:10	25	takers understood what it meant as they went	13:13:49	25	Q. This F1, Exhibit F1 survey is		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

				Page 126	Page 127
13:13:59	1	about the 802.11 standard, is it not?	13:15:31	1	Q. Do you know whether or not you can -- strike that.
13:14:06	2	MS. HOANG: Objection; form.	13:15:32	2	Do you know what the relationship is between bandwidth and the 802.11 standard?
13:14:07	3	A. The survey is referred to as an 802.11 more so for convenience, but the standard is reflected in the specific attributes or benefits that from a consumer point of view what benefits they get.	13:15:38	3	MS. HOANG: Objection.
13:14:09	4	That's really what is being captured out here.	13:15:42	5	A. I'm not a technical expert. I didn't need to know that here. I really needed to know more what benefit the consumer gets out of it.
13:14:13	5	Q. But was there a reason that you chose not to use the term 802.11 in the, in the screens, the choice screens?	13:15:46	6	Q. Are you aware of which of the Motorola patents at issue in this case pertain to the 802.11 standards?
13:14:16	6	MS. HOANG: Objection; form.	13:15:47	7	A. I'm not aware of it. I'm not a patent expert.
13:14:19	7	A. We describe what it reflects in the form of the Wi-Fi networks and the capabilities of those Wi-Fi networks.	13:15:49	8	Q. Did you look at any patents in connection with the preparation of your survey?
13:14:21	8	Q. Is it your testimony that by stating the bandwidth that supported, that's the same thing as the 802.11 standard itself?	13:15:52	9	A. No, I did not.
13:14:24	9	MS. HOANG: Objection; form.	13:15:54	10	Q. Did you attempt to assess an MVAI for any particular patented feature within the Motorola patents?
13:14:26	10	A. I'm not a technical expert. It is my understanding that the 802.11 is reflected in that particular benefit.	13:15:55	11	MS. HOANG: Objection; form.
13:14:34	11	Similar to something like Dolby, you know.	13:16:02	12	A. I'm not a patent expert. The way -- it's conversations with counsel about
13:14:40	12		13:16:04	13	
13:14:41	13		13:16:08	14	
13:14:43	14		13:16:10	15	
13:14:46	15		13:16:11	16	
13:14:48	16		13:16:12	17	
13:14:52	17		13:16:14	18	
13:14:56	18		13:16:14	19	
13:15:01	19		13:16:15	20	
13:15:01	20		13:16:23	21	
13:15:02	21		13:16:27	22	
13:15:05	22		13:16:31	23	
13:15:11	23		13:16:32	24	
13:15:20	24		13:16:34	25	
				Page 128	Page 129
13:16:39	1	the benefits from the patent and it's the patent benefits and the patent features data is described in consumer terminology.	13:17:36	1	the benefits of which were included in the conjoint.
13:16:41	2		13:17:39	2	Q. Did you -- are you aware of which Motorola patents pertained to the H.264 standard?
13:16:45	3		13:17:40	3	A. I'm not a patent expert. I wouldn't be able to answer that.
13:16:48	4	Q. What were you told by counsel about the benefits from the patents that you were attempting to assess?	13:17:46	4	Q. Did you attempt to evaluate the MVAI of any of the patented features in the Motorola patents pertaining to video content?
13:16:49	5	(Instruction not to answer.)	13:17:50	5	MS. HOANG: Objection; form.
13:16:51	6	MS. HOANG: Objection. Stop, don't answer that question. I'm going to instruct you not to answer on the basis of work product.	13:17:51	6	A. The features, I used the features that are described in the survey and the benefits, and that's what I tested in my survey.
13:16:55	7		13:17:54	7	Q. And what features were those with respect to the H.264?
13:16:55	8		13:17:58	8	A. So again, I'm not a patent expert, but my understanding would be that these include playing games, watch movies and listen to music uninterrupted, stream or download HD video content. It has to do with the high definition, decoding capability, and then watch HD live
13:16:56	9		13:18:00	9	
13:16:58	10		13:18:06	10	
13:16:59	11		13:18:13	11	
13:17:01	12		13:18:13	12	
13:17:02	13		13:18:15	13	
13:17:04	14		13:18:17	14	
13:17:06	15		13:18:18	15	
13:17:07	16		13:18:22	16	
13:17:10	17		13:18:23	17	
13:17:14	18		13:18:25	18	
13:17:15	19		13:18:27	19	
13:17:17	20		13:18:30	20	
13:17:17	21	MS. THAYER: Okay.	13:18:37	21	
13:17:21	22	Q. What is the H.264 standard?	13:18:45	22	
13:17:23	23	A. Again, I'm not a technical expert. In my understanding, that H.264 has to do with streaming video and high definition content, again, the features and	13:18:49	23	
13:17:27	24		13:18:51	24	
13:17:33	25		13:18:54	25	

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 130				Page 131			
13:18:57	1	television, high definition movies from USB	13:20:46	1	Q. And at the bottom it goes		
13:19:01	2	ports and Blu-Ray disks.	13:20:51	2	present, absent, absent. The bottom row.		
13:19:02	3	And these were described in	13:20:55	3	A. Yes. So I had described the		
13:19:05	4	explanations that were pilot tested with the	13:21:00	4	words play games, watch movies and listen to		
13:19:08	5	respondents.	13:21:05	5	music uninterrupted. H.2 -- sorry, stream		
13:19:13	6	Q. With respect to, for example, if	13:21:11	6	or download HD video content, decoding		
13:19:16	7	you turn to Exhibit F2, the first choice	13:21:15	7	capability, and watch high definition live		
13:19:26	8	screen. I can't direct you to a page number	13:21:17	8	television, high definition movies from USB		
13:19:33	9	because it's not paginated. When I asked	13:21:21	9	ports and Blu-Ray discs.		
13:19:49	10	you about the features described in the	13:21:24	10	Again, I had mentioned these,		
13:19:53	11	survey that pertain to the H.264 standard,	13:21:26	11	these four, but I also want to mention again		
13:19:57	12	you listed three of those, did you not?	13:21:28	12	what I said earlier. I'm not a patent		
13:19:59	13	A. Could you repeat that, I'm not	13:21:30	13	expert. These are features and benefits		
13:20:08	14	quite sure I understood that.	13:21:31	14	that I believe relate -- are all related in		
13:20:11	15	MS. THAYER: Could you read it	13:21:35	15	some sense to the H.264 patent.		
13:20:11	16	back and let me listen to it.	13:21:38	16	Q. So when you calculated the MVAI		
13:20:13	17	(Record read as requested.)	13:21:54	17	-- strike that.		
13:20:29	18	MS. HOANG: Can we just double	13:21:56	18	Would you look at table 11. So		
13:20:31	19	check and make sure you're looking at	13:22:22	19	there's an attribute there that says stream		
13:20:32	20	what he's looking at. Can you read	13:22:24	20	or download HD video content. Do you see		
13:20:35	21	the first sentence or something.	13:22:28	21	that?		
13:20:39	22	Q. There are four columns, first	13:22:28	22	A. Yes.		
13:20:42	23	one numbered 2, second one numbered 1, third	13:22:29	23	Q. Does the MVAI that you		
13:20:45	24	one numbered 3.	13:22:33	24	calculated there correspond only to the		
13:20:46	25	A. Okay.	13:22:37	25	attribute on the page we were just looking		
Page 132				Page 133			
13:22:40	1	at that says stream or download HD video	13:24:09	1	That would be the distinction		
13:22:43	2	content, or did it also take into account	13:24:11	2	between the two.		
13:22:47	3	other attributes that pertain to the H.264	13:24:12	3	Q. Well then streaming or		
13:22:53	4	standard?	13:24:15	4	downloading would be the benefit of the		
13:22:56	5	MS. HOANG: Objection; form.	13:24:16	5	feature of H.264 decoding capability?		
13:22:57	6	A. It would take only into account	13:24:20	6	A. Could be one of the benefits		
13:22:59	7	that particular benefit, whether it's	13:24:22	7	from that.		
13:23:02	8	present or absent, as we defined in the	13:24:22	8	Q. So in that respect they're not		
13:23:05	9	Exhibit F2 that we talked about a little	13:24:25	9	independent, are they?		
13:23:08	10	while ago.	13:24:25	10	A. Well, one has to do with --		
13:23:08	11	Q. So you treated these as	13:24:32	11	they're independent in the sense that there		
13:23:16	12	independent features; is that right?	13:24:35	12	may be, again, I'm not a patent expert, I'm		
13:23:19	13	A. That's correct.	13:24:38	13	not a technology expert, so I want to make		
13:23:23	14	Q. In what way is the ability to	13:24:40	14	sure that these are clearly understood.		
13:23:29	15	download HD video content independent from	13:24:43	15	Streaming, or downloading of video content		
13:23:34	16	the H.264 decoding capability?	13:24:46	16	is described, has the ability to receive		
13:23:39	17	MS. HOANG: Objection; form.	13:24:49	17	that content and -- from a user perspective.		
13:23:41	18	A. So the decoding, I mean this is	13:24:55	18	Whereas the H.264 is more a		
13:23:46	19	my understanding, the decoding capability is	13:24:57	19	decoding capability, which is understood		
13:23:49	20	more a, what I would call a feature and the	13:25:03	20	differently by different, you know, by the		
13:23:53	21	ability to stream or download the HD video	13:25:06	21	-- as described in the expression that is		
13:23:56	22	content would be more a benefit. It's	13:25:08	22	there, in the definition that is and in the		
13:24:01	23	similar to saying my laptop weighs 2 pounds,	13:25:14	23	survey it is understood more as a decoding		
13:24:05	24	versus my laptop is convenient for me to	13:25:16	24	capability off of the box.		
13:24:08	25	carry anywhere I want to go.	13:25:18	25	So you have to have the ability		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 134				Page 135			
13:25:20	1	to decode what you're receiving.	13:26:45	1	might be an individual who only wants the		
13:25:22	2	Again, I'm not a technical	13:26:46	2	ability to access it on the internet and not		
13:25:24	3	expert so I just want to make sure you	13:26:48	3	necessarily want to download it onto their		
13:25:26	4	understand that.	13:26:50	4	machines and view it in that fashion.		
13:25:27	5	Q. What is your evidence that a	13:26:52	5	And that's really what is		
13:25:29	6	respondent performing the survey would	13:26:54	6	reflected on there and the consumers and the		
13:25:36	7	understand H.264 decoding capability to be	13:26:56	7	people, when we pilot tested it they		
13:25:41	8	either dependent on or independent from	13:26:58	8	understood the difference and the choices		
13:25:45	9	stream or download HD video content?	13:27:01	9	they made are reflective of that.		
13:25:48	10	A. As far as, you know, we did the	13:27:02	10	Q. Can you stream HD video content		
13:25:57	11	pilot test, we've expressed what the	13:27:05	11	without decoding?		
13:26:01	12	H.264 -- again, I need to go back, if you	13:27:08	12	MS. HOANG: Objection; form.		
13:26:04	13	give me a second here, to the description	13:27:12	13	A. I'm not a technical expert, I		
13:26:08	14	that was used. Built-in H.264 decoding	13:27:15	14	wouldn't even go down that path.		
13:26:15	15	capability supports decoding of video	13:27:16	15	Q. Can you download HD video		
13:26:17	16	available over the internet. So this one is	13:27:20	16	content without decoding?		
13:26:21	17	more supporting the access of the internet;	13:27:22	17	MS. HOANG: Same objection.		
13:26:24	18	even the benefit there of H.264 is	13:27:27	18	A. I wouldn't know that for a fact.		
13:26:27	19	described. Whereas the other one is	13:27:31	19	I'm not a technical expert.		
13:26:30	20	streaming of downloading HD video content.	13:27:33	20	Q. And then respondents understood		
13:26:33	21	If you look at the way they're written,	13:27:35	21	stream or download HD video content to be,		
13:26:35	22	they're almost complementary. They support	13:27:37	22	to include streaming or downloading from the		
13:26:38	23	each other. You would want to have both.	13:27:41	23	internet?		
13:26:40	24	If you're a user you would want to have	13:27:43	24	A. Let's go back and look at what		
13:26:43	25	both. But you might be someone who, you	13:27:45	25	we describe for them. So H.264 decoding		
Page 136				Page 137			
13:27:52	1	capability was supports decoding of video	13:29:19	1	tested, it supports decoding of video		
13:27:58	2	available over the internet, and then stream	13:29:23	2	available over the internet. So the words		
13:28:01	3	or download HD video content as the ability	13:29:25	3	are supports decoding of the video available		
13:28:05	4	to stream or download high definition video	13:29:27	4	over the internet. That's the H.264. So		
13:28:07	5	content.	13:29:32	5	that's more the ability to access according		
13:28:09	6	So one is the ability to access,	13:29:35	6	to me. I'm not a technical expert.		
13:28:15	7	the other is the ability to receive.	13:29:37	7	And then the other one is stream		
13:28:18	8	Q. Which one is the ability to	13:29:39	8	or download high definition video content,		
13:28:19	9	access and which is the ability to receive?	13:29:42	9	it says ability to stream or download high		
13:28:21	10	A. I would say the decoding	13:29:44	10	definition video content.		
13:28:23	11	capability, and the other one, the stream or	13:29:46	11	So for consumers who saw that it		
13:28:26	12	download HD video content is the ability to	13:29:48	12	was very clear and they seemed to		
13:28:28	13	receive them downloaded.	13:29:51	13	understand, in my interpretation of it, as		
13:28:30	14	Q. So I'm sorry, could you -- could	13:29:53	14	you ask me that question now, is that this		
13:28:34	15	you read that back to me.	13:29:55	15	is more the ability to be able to view it.		
13:28:43	16	(Record read as requested.)	13:30:00	16	It's the downloading capability of it.		
13:28:44	17	Q. I'm sorry, I didn't understand.	13:30:16	17	Q. Did Ms. Pasternack specifically		
13:28:48	18	As between H.264 decoding capability and	13:30:17	18	ask any of the respondents in her two mall		
13:28:53	19	stream or download HD video content, which	13:30:23	19	interview, interview sessions about the		
13:28:55	20	of those two do you interpret to relate to	13:30:26	20	difference between those two items?		
13:29:00	21	accessing and which one do you understand to	13:30:29	21	A. I'm not aware of that. And from		
13:29:05	22	relate to, what was your other term,	13:30:32	22	the -- from what I needed for finalizing the		
13:29:11	23	retrieving?	13:30:35	23	survey, I was informed, debriefed by her		
13:29:11	24	A. Yes. So if you go back and look	13:30:39	24	that there was no difficulty in		
13:29:13	25	at how these were described, which was pilot	13:30:41	25	understanding those attributes.		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 138				Page 139			
13:30:42	1	Q. Do you know if she specifically	13:32:03	1	ability to accept a Wi-Fi adapter, so you		
13:30:45	2	discussed with anybody whether they could	13:32:06	2	don't have it built in, but you may have an		
13:30:47	3	distinguish between those two features?	13:32:08	3	adapter that you can include and be able to		
13:30:49	4	A. I do not know for sure.	13:32:12	4	use that adapter.		
13:30:52	5	Q. I note that in table 11 and in	13:32:13	5	Q. You need to back up. I asked		
13:31:04	6	table 15 the attribute of built-in Wi-Fi	13:32:16	6	you why you tested built-in Wi-Fi compatible		
13:31:08	7	compatible with B/G/N networks is listed.	13:32:20	7	with B/G/N networks in both surveys and you		
13:31:10	8	Do you see that?	13:32:25	8	said it's something that consumers would		
13:31:13	9	A. Yes.	13:32:29	9	want and then you contrasted that with		
13:31:14	10	Q. Why did you test that attribute	13:32:32	10	streaming or downloading video. I thought		
13:31:16	11	in both surveys?	13:32:36	11	that's what your answer was. Did I		
13:31:20	12	A. We tested that, I mean it's,	13:32:38	12	misunderstand you?		
13:31:23	13	again, the Wi-Fi capability is something	13:32:39	13	A. Well, what I said is the reason		
13:31:28	14	that consumers would want if you're looking	13:32:42	14	we included it was that we believed that it		
13:31:34	15	for other kinds of things like streaming and	13:32:44	15	is an important attribute to include out		
13:31:36	16	downloading. Though I understand you can	13:32:47	16	there and downloading would require one of		
13:31:38	17	access, you can stream or download using	13:32:53	17	those features in there. So we included		
13:31:40	18	other approaches.	13:32:55	18	that feature in the H.264 survey as well.		
13:31:42	19	So having Wi-Fi is necessary in	13:32:59	19	Q. My question to you is why did		
13:31:47	20	some sense to be able to access online	13:33:01	20	you include the question about Wi-Fi in both		
13:31:50	21	content and therefore we included that.	13:33:04	21	surveys? Why did you ask that question in		
13:31:52	22	Q. What other approaches can you	13:33:08	22	both? Or excuse me, test that feature in		
13:31:56	23	use to stream or download?	13:33:11	23	both surveys?		
13:31:59	24	A. Well, one of them is included	13:33:12	24	A. Because we felt it was an		
13:32:02	25	right here, which is, you know, you have the	13:33:15	25	important attribute of testing both surveys.		
Page 140				Page 141			
13:33:17	1	Q. Was it more important than the	13:34:42	1	content in there. So the objective here was		
13:33:19	2	H.264 decoding?	13:34:46	2	to see, you know, what that MVAI would be if		
13:33:22	3	A. That was, you know, we included	13:34:52	3	streaming content were available. I mean		
13:33:24	4	it in the survey. If it was not important	13:34:56	4	it...		
13:33:26	5	for the consumers, it would have reflected	13:34:56	5	Q. Why did you not test both H.264		
13:33:28	6	it in the results. We included it with the	13:35:03	6	and built-in Wi-Fi in both surveys?		
13:33:33	7	intent that we wanted to assess if consumers	13:35:09	7	A. Again, the objectives were very		
13:33:37	8	found those attributes to be important and	13:35:11	8	different. The objectives in the other		
13:33:39	9	if the consumers were, when they made	13:35:13	9	survey was to look at a set of Xbox 360s		
13:33:45	10	choices, their choices were reflective of	13:35:18	10	that the streaming content was not -- you		
13:33:48	11	the features that were included in there.	13:35:22	11	know, potentially not even available.		
13:33:49	12	Q. Why did you test built-in Wi-Fi	13:35:24	12	Whereas over here, keep in mind that choice		
13:33:53	13	compatible with B/G/N twice and not test	13:35:28	13	based conjoint is an attempt to reflect what		
13:33:57	14	H.264 decoding capability twice?	13:35:32	14	products that might be available in the		
13:34:01	15	A. The surveys as instructed to me	13:35:35	15	marketplace.		
13:34:08	16	by counsel, had different purposes. One was	13:35:35	16	So the 802.11 survey was		
13:34:10	17	focused, you know, with an intent where, you	13:35:40	17	reflective of features, you know, that did		
13:34:20	18	know, the H.264 was less of a concern and	13:35:44	18	not have the high definition content		
13:34:23	19	clearly the attributes there were reflective	13:35:46	19	available. The H.264 reflected that, the		
13:34:26	20	of Xboxes that may or may not have the	13:35:50	20	availability of that content.		
13:34:31	21	H.264.	13:35:53	21	Q. Well you'd agree with me that		
13:34:32	22	Whereas in this one, when we	13:35:55	22	you, in neither survey did you include all		
13:34:34	23	described the products, the Xbox 360	13:35:58	23	the features of an Xbox product within the		
13:34:37	24	products, we included the benefits from	13:36:05	24	choice boxes, did you?		
13:34:40	25	streaming or downloading high definition	13:36:07	25	A. I would agree with you that all		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 142				Page 143			
13:36:10	1	the features are not included. However,	13:37:23	1	for Wi-Fi, couldn't you?		
13:36:15	2	there is a clear statement that says assume	13:37:25	2	A. We could have done that. But		
13:36:18	3	all other features that are not included are	13:37:27	3	that would not have changed the results in		
13:36:21	4	held constant. It is customary to -- you	13:37:30	4	any fashion. You can clearly see that from		
13:36:25	5	know, it is common in survey research and	13:37:34	5	including it and comparing the results		
13:36:29	6	conjoint research to hold all of those other	13:37:37	6	they're not dramatically different.		
13:36:33	7	features constant because the mathematical,	13:37:38	7	Q. What is it that you're comparing		
13:36:36	8	statistical model assumes that those are	13:37:40	8	that you're concluding is not dramatically		
13:36:38	9	included in the other structure.	13:37:42	9	different?		
13:36:39	10	Additionally, when we did the	13:37:43	10	A. If I look at the 802.11 survey		
13:36:41	11	initial, the initial interviews, one of the	13:37:46	11	with the objective was focusing more on		
13:36:44	12	things that we are looking for is the	13:37:49	12	Wi-Fi, versus the -- and the choices that		
13:36:48	13	ability to understand from either the	13:37:52	13	people make between Wi-Fi and other features		
13:36:51	14	customer point of view or from looking at,	13:37:54	14	that drive the choice of Xbox 360 versus		
13:36:54	15	you know, choices that are available at a	13:37:58	15	down here in the H.264 here on page 11 of my		
13:36:57	16	bestbuy.com or other places as to what might	13:38:04	16	report, where they have not only the Wi-Fi		
13:37:00	17	be features that are more or less prominent.	13:38:06	17	features, they also have the ability to		
13:37:02	18	And that's basically what is	13:38:09	18	choose a product with streaming video		
13:37:07	19	being done out here. This is an	13:38:11	19	content, or high definition content.		
13:37:08	20	experimental testing that you're doing here	13:38:14	20	If you look at the MVAI numbers		
13:37:10	21	in trying to see how people make those	13:38:16	21	from the two of them, you see they're at,		
13:37:12	22	choices.	13:38:20	22	you know, there is some difference, but the		
13:37:12	23	Q. You could have conducted a	13:38:22	23	difference is not dramatic. It did not		
13:37:15	24	conjoint survey with respect to the H.264	13:38:24	24	drive, the availability of high definition		
13:37:18	25	standard that did not include an attribute	13:38:25	25	content did not drive the presence of Wi-Fi		
Page 144				Page 145			
13:38:30	1	at B/G or B/G/N networks, the MVAI for that	13:40:01	1	confidence level \$110.71.		
13:38:35	2	to zero.	13:40:04	2	If you look at table 15, now the		
13:38:35	3	I mean it was very clear and	13:40:06	3	number is \$113.41 for lower confidence level		
13:38:38	4	evident that these are features that people,	13:40:11	4	and the upper confidence level is \$141.62.		
13:38:40	5	that consumers care about and their choices	13:40:15	5	So when you look at the 113 for		
13:38:45	6	are driven by the availability of these	13:40:20	6	table 15, it is close to but different than		
13:38:47	7	features.	13:40:25	7	the \$110.71 for the upper confidence level		
13:38:52	8	Q. And table 1 there's weighted	13:40:30	8	given in table 11. What that is suggesting		
13:38:54	9	MVAI for built-in Wi-Fi compatible with	13:40:33	9	is at least at the 95 percent confidence		
13:38:58	10	B/G/N networks.	13:40:36	10	level that these two numbers are different.		
13:39:00	11	A. Table 1?	13:40:39	11	However, when you look at the		
13:39:01	12	Q. It should be. Table 15. And	13:40:42	12	point estimate that is the estimate, the		
13:39:10	13	the MVAI reported there is outside of the	13:40:46	13	95.32 and the 127.60, the difference there		
13:39:13	14	confidence levels of the MVAI reported for	13:40:50	14	is accounted for the availability of high		
13:39:18	15	the same attribute in table 11. Can you	13:40:51	15	definition streaming video and some of the		
13:39:21	16	explain that?	13:40:53	16	other attributes that are described in		
13:39:23	17	A. So again, I'm going to give you	13:40:55	17	there.		
13:39:29	18	an explanation not knowing exactly what --	13:40:55	18	The difference could be		
13:39:32	19	what explanation you're looking for. There	13:40:58	19	attributed, they could be allocated to the		
13:39:34	20	is a difference, you can clearly see the	13:41:01	20	fact that now when we did the H.264 survey		
13:39:37	21	built-in Wi-Fi compatible B/G/N networks in	13:41:05	21	there are additional benefits that are being		
13:39:41	22	table 11 has an MVAI of \$95.32. The same in	13:41:08	22	made available to the respondent and		
13:39:46	23	the, in table 15 which was the 802.11 survey	13:41:10	23	therefore, they're willing to place more		
13:39:51	24	is 127.60. The lower and upper confidence	13:41:12	24	emphasis on some of those other features.		
13:39:56	25	levels for table 11 are \$79.31 to the upper	13:41:14	25	Q. So you conclude from the fact		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

		Page 146		Page 147
13:41:17	1	that the range of Wi-Fi compatible with	13:42:39	1 in one study than the other?
13:41:23	2	B/G/N networked MVAI is outside the	13:42:41	2 A. I did not do any research,
13:41:29	3	confidence level of the MVAI that you	13:42:46	3 certainly by going back and talking to any
13:41:32	4	computed in table 11, you conclude from that	13:42:48	4 of these consumers. However, the results in
13:41:35	5	that it was the availability of H.264	13:42:51	5 both of the surveys are valid and they're
13:41:40	6	decoding that reduced the MVAI in table 11?	13:42:54	6 very much reflective of what consumers saw
13:41:46	7	A. It could be that or it could be	13:42:58	7 in the choices that they had to make and how
13:41:48	8	some of the other features that were	13:43:01	8 much emphasis or value they place on the
13:41:50	9	available. And you can see that in the	13:43:04	9 choices that they made.
13:41:53	10	process of doing this, you know, the	13:43:04	10 Q. So would it be fair to say then
13:41:56	11	standard features were probably	13:43:08	11 that the MVAI that's represented in table 11
13:41:58	12	under-valued.	13:43:11	12 is not an absolute value, but rather it's a
13:41:58	13	And this is a typical thing. As	13:43:14	13 value in the context of the other features
13:42:00	14	market shifts, then when newer features are	13:43:18	14 presented to the respondent in that
13:42:05	15	made available, consumers will place more	13:43:21	15 particular survey?
13:42:08	16	emphasis on that, and some of the existing	13:43:22	16 A. It's a value that, it could --
13:42:10	17	features, like the number of USB ports or	13:43:27	17 when a consumer is presented with these
13:42:13	18	the number of controllers, these become	13:43:29	18 choices, it is a value that the consumer is
13:42:18	19	table stakes, they become less in value	13:43:33	19 placing on a feature, and given the various
13:42:21	20	because the emphasis is on some of these	13:43:39	20 other things that are available to him, the
13:42:23	21	additional features that are coming out of	13:43:41	21 various other, him or her, so given what
13:42:25	22	the marketplace.	13:43:44	22 else is available to him, that's what it is
13:42:26	23	Q. Did you do any research to	13:43:48	23 reflective of.
13:42:27	24	actually determine why the MVAI was, for	13:43:49	24 Q. So it's not an absolute measure
13:42:36	25	built-in Wi-Fi, etc., was significantly less	13:43:52	25 of value; is that fair?
		Page 148		Page 149
13:43:54	1	A. It's reflective of the	13:45:14	1 that they're not going to buy any of them
13:44:00	2	consumer's emphasis on, you know, when	13:45:16	2 because they are looking for other things,
13:44:05	3	presented with choices, when presented with	13:45:17	3 or they're going to place less value on
13:44:07	4	choices at different price points, how much	13:45:21	4 these things and you will see that the
13:44:12	5	would they be -- in effect, what is a	13:45:23	5 explanation would be devoid of things that
13:44:15	6	maximum value, a maximum price they might be	13:45:27	6 they really value.
13:44:18	7	willing to pay for that particular feature.	13:45:28	7 So they'll place low emphasis on
13:44:21	8	That's what it's reflective of.	13:45:31	8 controllers, low emphasis on USBs. They'll
13:44:23	9	Q. And if that consumer is	13:45:33	9 be picking every time the option none. And
13:44:24	10	presented with a different set of choices,	13:45:36	10 one of the choices here is none, and none
13:44:26	11	the maximum they might be willing to pay for	13:45:40	11 will get a bigger demand or a bigger share.
13:44:28	12	the same feature might be less?	13:45:43	12 Q. Can you try and answer my
13:44:32	13	MS. HOANG: Objection; form.	13:45:44	13 question just yes or no. If you can't, you
13:44:33	14	A. If they were presented with the	13:45:46	14 can't, but could you listen to it and see if
13:44:37	15	several features that are not in here, they	13:45:49	15 you could answer it yes or no.
13:44:42	16	-- if they value those features a lot less,	13:45:51	16 A. Sure.
13:44:45	17	so let us assume, for example, that the	13:45:52	17 Q. Would it be fair to say that the
13:44:48	18	choice test did not include anything to do	13:45:53	18 MVAI that's reported in tables 11 and 15 for
13:44:50	19	with any of these features and they were	13:45:58	19 built-in Wi-Fi compatible with B/G/N, is not
13:44:53	20	only looked at in terms of the number of	13:46:05	20 an absolute number, but rather a comparative
13:44:56	21	controllers and the price point or the brand	13:46:08	21 number based on the other features that are
13:45:01	22	or, you know, USB ports, and if they really	13:46:10	22 presented to the respondent in the choice
13:45:06	23	didn't care about any of those features,	13:46:16	23 models?
13:45:08	24	they are more likely to place emphasis on	13:46:16	24 A. Can I ask you to go back and
13:45:11	25	something, they're either going to suggest	13:46:18	25 rephrase it for me so that the exact answer,

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 150				Page 151			
13:46:21	1	what is a yes or no, just so I can explain	13:49:46	1	value.		
13:46:24	2	that.	13:49:47	2	So that is what a -- you know,		
13:46:24	3	Q. Sure.	13:49:50	3	my answer to your question would be it is an		
13:48:16	4	(Record read as requested.)	13:49:52	4	absolute within the context of what you're		
13:48:17	5	A. Could you repeat for me the	13:49:54	5	seeing there.		
13:48:18	6	first, because I want to make sure that I	13:49:54	6	Q. But if the context changes, then		
13:48:21	7	understand the question. It's not a simple	13:49:56	7	the value may change as well?		
13:48:23	8	question, that's got a couple of different	13:49:58	8	A. The value may change.		
13:48:26	9	--	13:50:00	9	Q. Now, in your H.264 survey, did		
13:48:29	10	MS. THAYER: Counsel, would you	13:50:07	10	you anywhere define what MBAFS -- excuse		
13:48:30	11	mind if he read the question?	13:50:12	11	me -- MBAFF means?		
13:48:32	12	Sometimes it's harder to keep it --	13:50:15	12	A. The -- let me go back to -- give		
13:48:34	13	MS. HOANG: Read it. If you	13:50:23	13	me one second here. Now I'm completely		
13:48:35	14	understand it, answer it. If you	13:50:39	14	confused. So we had described what MBAFF		
13:48:37	15	don't, let us know.	13:50:52	15	was in the form of Macroblock adapter		
13:48:38	16	(Record read as requested.)	13:50:55	16	framework/field in the survey. This is		
13:49:16	17	A. So it is, the -- so the answer	13:50:58	17	question QH5A1.		
13:49:21	18	is it an absolute number in the context	13:51:03	18	Q. Did you do any research to		
13:49:24	19	of what's presented to the respondents. So	13:51:04	19	determine whether any of the respondents		
13:49:29	20	the context that was presented in the 802.11	13:51:07	20	understood what that is?		
13:49:33	21	is as described in the survey there.	13:51:10	21	A. I mentioned earlier that I --		
13:49:35	22	Context presented in the H.264 had	13:51:12	22	this was not a pilot tested question.		
13:49:39	23	additional benefits.	13:51:15	23	Additionally, the exact question		
13:49:40	24	So when you add additional	13:51:16	24	was written in a very simple term, and the		
13:49:42	25	benefits, you would see the shifting of	13:51:19	25	terminology MBAFF, you know. If someone did		
Page 152				Page 153			
13:51:23	1	not understand that question, they had an	14:03:17	1	please, to pull out the, I think you've		
13:51:25	2	opt-out in the form of answering I'm not	14:03:20	2	already got it, Exhibit 338, which is the		
13:51:27	3	sure, I don't know what it is.	14:03:22	3	initial report and turn to page 10, please.		
13:51:32	4	Q. So is the answer to my question	14:03:43	4	There's a table 10 there, do you see?		
13:51:34	5	yes or no?	14:03:45	5	A. Yes.		
13:51:34	6	A. We have not pilot tested this, I	14:03:46	6	Q. The text states that this, this		
13:51:36	7	mentioned that earlier.	14:03:48	7	table indicates the desirability ratings.		
13:51:37	8	Q. Well I just was asking more	14:03:51	8	Could you tell me how those desirability		
13:51:39	9	broadly was there any research done to	14:03:53	9	ratings were calculated?		
13:51:41	10	determine if respondents understood what	14:03:57	10	A. So in the survey we ask the		
13:51:43	11	that was?	14:04:00	11	question -- and I will go to Exhibit F2.		
13:51:43	12	A. There was no research done.	14:04:13	12	Just give me one second. Okay, so we have a		
13:51:45	13	There was no pilot test done.	14:05:15	13	question that says "Please indicate how		
13:52:02	14	Can I -- can I ask for a short	14:05:17	14	desirable is the ability to play Blu-Ray		
13:52:04	15	bio break, real short.	14:05:20	15	discs on your Xbox Console." And then the		
13:52:04	16	MS. THAYER: Oh, of course, we	14:05:24	16	scale question there is completely		
13:52:05	17	can take a break.	14:05:27	17	undesirable, undesirable, neutral,		
13:52:07	18	THE VIDEOGRAPHER: One moment,	14:05:29	18	desirable, completely desirable.		
13:52:07	19	please, watch your microphones. The	14:05:31	19	And that same question was		
13:52:09	20	time is now 1:52 p.m., we're off the	14:05:33	20	repeated for "Please indicate how desirable		
13:52:11	21	record.	14:05:36	21	to you is the ability to view websites with		
13:52:12	22	(A recess was taken.)	14:05:41	22	video using Internet Explorer on your Xbox		
14:03:03	23	THE VIDEOGRAPHER: The time is	14:05:45	23	Console." And then a -- with the same		
14:03:10	24	2:03 p.m., we're back on the record.	14:05:50	24	desirability scale.		
14:03:13	25	Q. I'm going to ask you now,	14:05:51	25	And the question was asked again		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 154				Page 155			
14:05:52	1	of all the respondents, "Please indicate how	14:07:16	1	a consumer myself, it's possible that you		
14:05:56	2	desirable to you is the ability to decode	14:07:21	2	have a large video, you know, collection		
14:05:58	3	H.264 encoded video on your Xbox Console."	14:07:25	3	that are not Blu-Ray DVDs and you may or may		
14:06:05	4	And then a description is given there for	14:07:29	4	not find that desirable because, you know,		
14:06:08	5	H.264, "MPEG-4 or AVC is a standard for	14:07:31	5	you don't care much about the ability to		
14:06:11	6	video compression, and is used for	14:07:35	6	play Blu-Ray discs on there.		
14:06:14	7	recording, compression and distribution of	14:07:37	7	Q. Yes, but why would that		
14:06:16	8	high definition video."	14:07:40	8	respondent check the box undesirable rather		
14:06:18	9	And these were the counts of how	14:07:43	9	than neutral?		
14:06:19	10	many people said, of the 499 respondents,	14:07:45	10	MS. HOANG: Objection; form.		
14:06:24	11	23.4 percent said that the Blu-Ray discs was	14:07:47	11	A. I don't know the answer to that		
14:06:27	12	completely desirable, ability to view video	14:07:48	12	question. It's a survey respondent. They		
14:06:32	13	on websites using internet Explorer, 27.7	14:07:50	13	feel strongly about it. They have the		
14:06:36	14	percent, ability to decode H.264, 20.8	14:07:52	14	ability to check undesirable.		
14:06:40	15	percent, desirable, those are the numbers,	14:07:53	15	Q. So you don't find it at all odd		
14:06:44	16	the 30.7 percent for Blu-Ray discs, 28.3	14:07:58	16	that 12.6 percent of respondents answered		
14:06:48	17	percent in column 2 and so on.	14:08:02	17	either undesirable or completely undesirable		
14:06:50	18	Q. Why would a respondent say that	14:08:05	18	with respect to having the ability to play		
14:06:54	19	the ability to play Blu-Ray discs was	14:08:12	19	Blu-Ray discs?		
14:06:58	20	undesirable?	14:08:14	20	A. I don't find that odd, no.		
14:07:00	21	A. So I have -- obviously, I -- the	14:08:16	21	Q. So it's your view that it would		
14:07:06	22	survey taker is taking the survey, so I	14:08:22	22	be typical for a consumer to find it		
14:07:09	23	don't know exactly what was in the mind of	14:08:25	23	undesirable for a product to have an extra		
14:07:11	24	that very specific respondent. However,	14:08:31	24	attribute?		
14:07:14	25	there could be a number of reasons. And as	14:08:33	25	MS. HOANG: Objection; form.		
Page 156				Page 157			
14:08:35	1	A. Again, I don't know what's in	14:09:36	1	Q. Have you gone back to study any		
14:08:36	2	the minds of the consumer. The consumer may	14:09:46	2	of the overall responses from respondents		
14:08:38	3	have various circumstances and they may	14:09:48	3	that checked completely undesirable or		
14:08:41	4	decide that it is undesirable for them to	14:09:53	4	undesirable for any of these features?		
14:08:43	5	have them. And they've been given the	14:09:55	5	A. I have not done as part of this		
14:08:46	6	opportunity to provide that answer and it's	14:09:57	6	report. But as I said, the data is		
14:08:48	7	a small percentage of people right there.	14:10:00	7	available. It can be done.		
14:08:53	8	Q. Would that sort of an answer be	14:10:09	8	Q. By the way, did you at any point		
14:08:55	9	consistent with a respondent that's not	14:10:11	9	calculate MVAI for either of the features		
14:09:04	10	paying much attention to the survey and	14:10:13	10	that you were studying here without the		
14:09:06	11	simply completing it quickly to then be able	14:10:15	11	constraints that we discussed earlier today?		
14:09:09	12	to get their reward?	14:10:18	12	A. I have not done it as part of		
14:09:10	13	A. I don't believe so. I don't	14:10:22	13	this report, but it's something we have,		
14:09:10	14	think it's consistent with any of that.	14:10:24	14	can be done.		
14:09:12	15	Q. Why would that not be consistent	14:10:24	15	Q. Did you mention anywhere in your		
14:09:15	16	with somebody who was just racing through	14:10:26	16	report that you had imposed those		
14:09:17	17	the survey without paying much attention?	14:10:28	17	constraints on the analysis?		
14:09:19	18	A. Because the scale has a clear	14:10:32	18	A. Again, I did not mention it		
14:09:22	19	five point scale. If they picked	14:10:35	19	explicitly in the report. These are		
14:09:24	20	undesirable because they're racing through	14:10:37	20	standard procedures, logical sequence, I did		
14:09:26	21	it, they could also have equally, have equal	14:10:39	21	not mention it in my report.		
14:09:29	22	probability of picking up desirable. So	14:10:40	22	Q. Let's look at page 11, which		
14:09:31	23	therefore, you know, there's no -- you can't	14:10:45	23	talks about MVAI. Your report indicates		
14:09:35	24	presuppose that. I don't believe that is	14:10:55	24	that MVAI is also referred to as the		
14:09:36	25	the case.	14:10:58	25	willingness to pay price, right?		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 158				Page 159			
14:11:02 1	A. Yes.	14:13:18 1	Excel spreadsheet. Is this the document	14:11:02 2	Q. Is that sometimes abbreviated	14:13:24 2	where the MVAI calculation was carried out?
14:11:06 3	WTP?	14:13:27 3	A. That's correct.	14:11:09 4	A. Yes, some people abbreviate it	14:13:28 4	Q. What does MWTP value stand for?
14:11:11 5	as WTP. I've chosen the word market,	14:13:48 5	A. The WTP is willingness to pay.	14:11:18 6	market's value of attribute importance	14:13:51 6	M is the market's willingness to pay. And
14:11:20 7	because it is more reflective, sorry,	14:13:54 7	that's what's being used there. So MVAI,	14:11:25 8	market's value for the improvement of the	14:13:57 8	MWTP is interchangeably used out there.
14:11:27 9	feature because it's reflective of the	14:14:02 9	Q. What market are you referring to	14:11:30 10	attribute feature improvement.	14:14:03 10	when you say market's willingness to pay?
14:11:32 11	Q. You list here five steps for	14:14:05 11	A. It's the market represented by	14:11:46 12	computing the MVAI; is that right?	14:14:09 12	these 499 or 561 respondents that were, that
14:11:49 13	A. That's correct.	14:14:20 13	met the criteria in the survey to	14:12:08 14	Q. Were these steps carried out by	14:14:22 14	participate in this conjoint exercise.
14:12:11 15	a person, by a computer, or something else?	14:14:26 15	Q. I'm correct that to meet those	14:12:15 16	A. They're carried out in the Excel	14:14:29 16	criteria a respondent had to own an Xbox but
14:12:17 17	spreadsheet that was provided.	14:14:33 17	did not have to use it; is that right?	14:12:33 18	MS. THAYER: Let's mark as the	14:14:35 18	A. It's -- I just want to go back
14:12:34 19	next exhibit in order a spreadsheet	14:14:42 19	and make sure. There were questions that	14:12:38 20	that has Bates number	14:14:44 20	were asked about whether they owned it or
14:12:45 21	MOTM_WASH1823_0603683.	14:14:47 21	whether they made a purchase and whether	14:12:48 22	(PX Exhibit 351 for	14:14:50 22	they used it as well. So there was -- there
14:12:48 23	identification, Bates stamped	14:14:53 23	were different questions that looked at	14:13:17 24	MOTM_WASH1823_0603683.)	14:14:56 24	ownership and their role in making the
14:13:17 25	Q. You just made reference to an	14:14:58 25	decision.				
Page 160				Page 161			
14:14:58 1	Q. Well could you please -- I do	14:16:57 1	Q. That's not what my question was.	14:15:02 2	need an accurate answer to this question.	14:16:59 2	I owned it, I purchased it, I was the only
14:15:06 3	Would a person such as myself who owns an	14:17:03 3	one involved in purchasing it, but I have	14:15:11 4	Xbox but has never used it qualify for	14:17:05 4	never used it. Would I qualify for your
14:15:16 5	either or both of these surveys, or would I	14:17:08 5	surveys?	14:15:19 6	be screened out because I don't use it?	14:17:08 6	A. Now in that question, yes.
14:15:23 7	A. Let me confirm that for you.	14:17:10 7	Q. Okay. My teenage son who uses	14:15:27 8	Okay?	14:17:19 8	the Xbox in my house was not responsible for
14:15:27 9	Q. Thank you.	14:17:26 9	purchasing the Xbox and he does not own it.	14:15:52 10	A. So if you owned and you were not	14:17:28 10	Would he qualify for your survey?
14:15:59 11	responsible for the purchase, you would be	14:17:30 11	A. If he had said -- if he had said	14:16:04 12	screened out. If you did not own you would	14:17:47 12	he did not own it, he would not qualify -- I
14:16:10 13	be screened out. So you should have in some	14:17:51 13	want to make sure I clarify this before I --	14:16:17 14	manner owned it and said either one, two or	14:17:59 14	if he -- if he had said he does not own a
14:16:23 15	three of question QA9 of Exhibit 338, page 8	14:18:03 15	Microsoft Xbox, he would not be included as	14:16:31 16	of Exhibit A of my report and you would be	14:18:14 16	part of the survey.
14:16:38 17	eligible to participate in the survey.	14:18:15 17	Q. In the Authentic Response panel	14:16:39 18	Q. So I am somebody that bought an	14:18:19 18	are there any minors?
14:16:43 19	Xbox, I own it, it's in my house, but I've	14:18:22 19	A. Minors below -- minors are	14:16:46 20	never used it. Do I qualify for your	14:18:32 20	generally allowed to participate in surveys
14:16:49 21	surveys or not?	14:18:36 21	only with the consent of their parents. And	14:16:49 22	A. If you answered I did not	14:18:39 22	I need to go back and look at exactly
14:16:51 23	purchase it, or you were not responsible for	14:18:44 23	Authentic Response's policy or what they	14:16:53 24	purchasing it, you would not qualify for my	14:18:49 24	have in their panel. I don't remember from
14:16:57 25	survey.	14:18:58 25	-- I don't remember it from memory.				

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 162				Page 163			
14:18:59	1	Q. For purposes of your surveys,	14:21:03	1	universe for purposes of testing or		
14:19:20	2	what was the relevant universe?	14:21:10	2	answering the question what is the MVAI of		
14:19:25	3	A. Sorry, for -- so let me answer	14:21:13	3	H.264 standard in the Xbox?		
14:19:33	4	this question as for the purposes of our	14:21:20	4	MS. HOANG: Objection; form.		
14:19:37	5	survey, the universe included, you know,	14:21:22	5	A. The universe there was those who		
14:19:47	6	gender was not the issue. Anybody born	14:21:27	6	owned and who answered two, which is they		
14:19:54	7	between 1995, inclusive of 1995, and before	14:21:34	7	own an Xbox recently, at least own an Xbox,		
14:20:01	8	was included in the survey. Anyone born	14:21:38	8	Microsoft Xbox, answer of two, item 2 here		
14:20:06	9	after -- sorry, anyone born after 1996, 1996	14:21:43	9	on QA8.		
14:20:10	10	and -- 1996 and before were included in the	14:21:44	10	And those who on QA9 identified		
14:20:13	11	survey. Anybody born after 1996 were not	14:21:49	11	themselves as being either solely		
14:20:18	12	included in the survey.	14:21:51	12	responsible for the purpose -- for the		
14:20:20	13	And then the universe to whom	14:21:53	13	purchase, primarily responsible but some		
14:20:24	14	the survey was mailed out to included, was	14:21:57	14	other member was also involved, some other		
14:20:29	15	representative of the US population. And	14:21:59	15	family member was also involved, or another		
14:20:33	16	those that did complete the survey were	14:22:02	16	family member had primary responsibility but		
14:20:35	17	those who owned an Xbox and then met the	14:22:06	17	they were involved in the purchase.		
14:20:39	18	criteria for being, of having answered QA9	14:22:08	18	So that was, you know, Microsoft		
14:20:45	19	here in this exhibit, the criteria for	14:22:11	19	Xbox ownership was one, and then involvement		
14:20:48	20	having made the decision or been involved in	14:22:16	20	in the purchase was a second criteria.		
14:20:50	21	the decision.	14:22:18	21	Q. Why did your universe not		
14:20:50	22	Q. But setting aside the panel that	14:22:22	22	include individuals who were considering in		
14:20:53	23	you selected respondents from or that	14:22:25	23	the near term purchasing an Xbox?		
14:20:57	24	Authentic Response obtained respondents	14:22:27	24	A. We did not include them. We		
14:21:00	25	from, what did you think was the relevant	14:22:46	25	wanted to make -- you know, we wanted to		
Page 164				Page 165			
14:22:48	1	make sure that these are individuals who had	14:24:14	1	making those choices how much emphasis did		
14:22:51	2	gone through the purchase of an Xbox and as	14:24:17	2	they place on one attribute or another		
14:22:55	3	a result, we didn't feel it was important to	14:24:20	3	attribute.		
14:22:58	4	include those who were considering the	14:24:20	4	To include someone who is in the		
14:22:59	5	purchase of an Xbox.	14:24:23	5	consideration -- is considering but hasn't		
14:23:02	6	Q. Was it because you were only	14:24:25	6	made a purchase would involve other things		
14:23:09	7	interested in some historical MVAI rather	14:24:30	7	that we don't know if they're actually		
14:23:12	8	than current or future MVAI?	14:24:33	8	considering or not considering. We don't		
14:23:17	9	MS. HOANG: Objection; form.	14:24:35	9	know what aspects they might consider, so we		
14:23:19	10	A. No, that was not the case here.	14:24:38	10	didn't find it the relevant universe to		
14:23:21	11	Q. So I'm trying to understand why	14:24:41	11	survey.		
14:23:23	12	the views of a consumer who, for example,	14:24:42	12	Q. Why did you not further screen		
14:23:29	13	had a Wii or a PlayStation and was thinking	14:24:58	13	respondents to ensure that they actually		
14:23:33	14	about getting an Xbox, why was that section	14:25:07	14	used the Xbox, didn't just purchase it, but		
14:23:41	15	of the population not relevant to your	14:25:11	15	actually used it and therefore were familiar		
14:23:43	16	research?	14:25:14	16	with these features?		
14:23:48	17	A. The purpose was, was people who	14:25:14	17	A. Well, we have people who owned		
14:23:49	18	have owned and been involved in the purchase	14:25:17	18	it and those who are involved in the		
14:23:52	19	decision of an Xbox, that was the primary	14:25:20	19	purchase decision. So, you know, use comes		
14:23:55	20	objective. And we -- the choices would be	14:25:24	20	after the purchase. When you're making the		
14:24:00	21	relevant to them, the choices that were	14:25:27	21	purchase, you're making the tradeoffs		
14:24:03	22	presented to them in the choice based	14:25:30	22	between the various attributes that are		
14:24:05	23	conjoint would be relevant to them, and we	14:25:33	23	presented to you. And that reality is		
14:24:08	24	wanted to -- it's clear that the choice	14:25:35	24	captured in the survey.		
14:24:11	25	based conjoint looks at in the process of	14:25:36	25	So you want to have people who		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 166				Page 167			
14:25:38	1	are involved in the purchase, not people,	14:27:44	1	connected to the internet using at least one		
14:25:40	2	not just people who have used the product.	14:27:46	2	of the options presented."		
14:25:45	3	They may have used it at a friend's house,	14:27:53	3	Given that you excluded from the		
14:25:47	4	they may have used it elsewhere. For us it	14:27:54	4	survey individuals who had not connected to		
14:25:52	5	is important that they be involved in the	14:27:56	5	the internet, why was that a relevant		
14:25:53	6	purchase process.	14:28:00	6	finding to put in your report?		
14:25:54	7	Q. Well why wasn't it important for	14:28:08	7	A. Well, it was relevant to		
14:25:56	8	you then to further screen and ensure that	14:28:10	8	describe the respondents here, only those		
14:25:59	9	you were administering the survey to	14:28:19	9	that did connect to the internet, and that		
14:26:06	10	individuals who used the Xbox?	14:28:25	10	how they connected to the internet is what		
14:26:08	11	A. You know, as I mentioned, the	14:28:27	11	is being described in the table in table 12.		
14:26:13	12	choices are made at the time of purchase.	14:28:31	12	Q. Well, isn't it a little bit,		
14:26:16	13	Use happens after the purchase is made. So	14:28:34	13	that sentence a little bit misleading to say		
14:26:18	14	it's important to see what's happening at	14:28:37	14	that a hundred percent of Xbox users have		
14:26:20	15	the choice process and that's really what	14:28:40	15	connected to the internet using at least one		
14:26:22	16	we're capturing out here.	14:28:42	16	of the options presented, when you didn't		
14:26:24	17	There is data here -- yes.	14:28:46	17	actually survey all Xbox users, in fact, you		
14:26:43	18	Q. You excluded, did you not,	14:28:51	18	only surveyed Xbox owners and you excluded		
14:26:45	19	anyone from the survey who did not connect	14:28:55	19	any owner who had never connected to the		
14:26:50	20	to the internet; is that right?	14:28:58	20	internet?		
14:27:13	21	A. Yes, that's correct.	14:28:58	21	A. It could be misleading, that's		
14:27:34	22	Q. On page 12 of your report under	14:29:00	22	correct.		
14:27:36	23	usage, you indicate that the results, excuse	14:29:00	23	Q. Okay. So all you were meaning		
14:27:39	24	me, you state that "the survey results	14:29:02	24	to say by that sentence was that you had		
14:27:41	25	indicate that 100 percent of Xbox users have	14:29:06	25	screened out --		
Page 168				Page 169			
14:29:08	1	A. That's correct.	14:30:28	1	column that says connectivity, what does		
14:29:08	2	Q. -- anyone who didn't connect and	14:30:30	2	that data represent?		
14:29:11	3	these were the three different ways that one	14:30:31	3	A. That data represents the		
14:29:12	4	could connect and your survey shows how	14:30:37	4	question that was asked of them, off of them		
14:29:16	5	frequently your sample -- strike that. This	14:30:40	5	as to how they connected, when connecting to		
14:29:21	6	table 12 shows of the people that connected,	14:30:45	6	the internet, how they connected to the		
14:29:26	7	the users that connected to the internet	14:30:47	7	internet. 52.6 percent, and you can see		
14:29:30	8	which method was used most frequently, is	14:30:50	8	they don't sum up to a hundred percent		
14:29:34	9	that fair?	14:30:52	9	because they were allowed to check more than		
14:29:35	10	MS. HOANG: Objection; form.	14:30:54	10	one, 52.6 percent said they connected using		
14:29:36	11	A. So the first column is how they	14:30:59	11	a hard wired connection, 44.5 percent said		
14:29:39	12	connected of those who connected to the	14:31:04	12	Wi-Fi, and then 38.5 percent said they		
14:29:41	13	internet, and the second column is what they	14:31:08	13	connected using an external Wi-Fi network		
14:29:43	14	used more frequently to connect.	14:31:11	14	adapter.		
14:29:46	15	Q. Did you find out with respect to	14:31:12	15	And then the second column there		
14:29:55	16	Wi-Fi how much the average user used Wi-Fi,	14:31:15	16	pertains to the same, to the question that I		
14:30:04	17	or did you simply for your population	14:31:17	17	asked them, what was the method used most		
14:30:07	18	determine which method of connection was	14:31:24	18	often. Yes. So if they picked, they picked		
14:30:14	19	most frequently used?	14:31:34	19	two or more, then they were asked to		
14:30:17	20	A. Can you repeat that question for	14:31:37	20	indicate which one they picked the most		
14:30:19	21	me.	14:31:39	21	often.		
14:30:20	22	Q. Let me strike that. We've got	14:31:39	22	Q. And finally, does any of your		
14:30:24	23	five minutes, we can do this in five	14:31:41	23	data show the frequency with which		
14:30:27	24	minutes.	14:31:49	24	respondents connected to the internet, for		
14:30:27	25	Could you explain to me, this	14:32:00	25	example, once a week, once a day, once a		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 170				Page 171			
14:32:05	1	year?		14:45:50	1	Q. It goes on to say "The utility	
14:32:15	2	A. No, it does not ask that		14:45:52	2	function is an equation," etc.?	
14:32:16	3	question.		14:45:55	3	A. Yes.	
14:32:31	4	MS. THAYER: Let's take another		14:45:56	4	Q. Is there any document that you	
14:32:32	5	break here. We are making lots of		14:45:57	5	can point to that would show me what that	
14:32:34	6	progress, but we do need to change the		14:46:00	6	equation is?	
14:32:36	7	tape.		14:46:01	7	A. I believe the CBC/HB manual, so	
14:32:36	8	THE VIDEOGRAPHER: Thank you.		14:46:14	8	this is a Sawtooth Software CBC/HB manual	
14:32:37	9	One moment, please, watch your		14:46:19	9	that describes what the model of the	
14:32:39	10	microphones. Here now marks the end		14:46:21	10	equation is that is used.	
14:32:41	11	of tape 4 of the deposition of Dr. R.		14:46:32	11	Q. Is there only one equation that	
14:32:44	12	Sukumar. The time is 2:32 p.m., we		14:46:37	12	is available to be used in that software?	
14:32:46	13	are off the record.		14:46:43	13	A. Well --	
14:32:49	14	(A recess was taken.)		14:46:46	14	Q. Or are there choices to be made?	
14:45:10	15	THE VIDEOGRAPHER: Here now		14:46:47	15	A. No, there's -- there's only one	
14:45:24	16	marks the beginning of tape 5 of the		14:46:53	16	equation to be used. That's -- that's	
14:45:26	17	deposition of Dr. R. Sukumar. The		14:46:55	17	basically the model itself is driven by	
14:45:28	18	time is 2:45 p.m., we're back on the		14:46:58	18	that.	
14:45:31	19	record.		14:46:58	19	Q. Where, if at all, in Exhibit	
14:45:32	20	Q. I have a few more questions on		14:47:09	20	351, could I find the computation of the	
14:45:34	21	page 11 of your report where the MVAI		14:47:11	21	utility functions for the sample of	
14:45:38	22	calculations are described. Step 1 refers		14:47:13	22	respondents?	
14:45:44	23	to computing the utility function for the		14:47:14	23	A. Sure. So I'm on Exhibit 351.	
14:45:48	24	sample of respondents. Do you see that?		14:47:27	24	If you look at page 3 and on, starting with	
14:45:49	25	A. Yes.		14:47:34	25	the column that reads, Wi-Fi on the top,	
Page 172				Page 173			
14:47:39	1	Wi-Fi threshold, under Wi-Fi threshold you		14:49:22	1	3, at the top you see the word average and	
14:47:42	2	have four columns, under hard driver you		14:49:25	2	then you will see averages computed all	
14:47:45	3	have four columns. So the utility function		14:49:28	3	throughout.	
14:47:48	4	for respondent number 1308 is, consists of a		14:49:34	4	Q. And that row reflects average	
14:47:55	5	coefficient, so for Wi-Fi capability across		14:49:36	5	utilities?	
14:48:00	6	those four levels, a hard drive across those		14:49:36	6	A. Correct.	
14:48:03	7	four levels. So if you wanted to see what		14:49:37	7	Q. Step 3 is to compute the utility	
14:48:07	8	is the probability that respondent number		14:49:43	8	difference across the improvements levels.	
14:48:10	9	1308 would choose a product comprising of		14:49:46	9	Where is that computation reflected?	
14:48:18	10	built-in Wi-Fi capability with B/G/N, B/G/N		14:49:50	10	A. It's also reflected in the	
14:48:25	11	networks, a 250 gigabyte hard drive, HDMI		14:49:53	11	spreadsheet and I want to go to page 4, for	
14:48:29	12	port being present, at a price point, you		14:49:57	12	example, you will now see that the average	
14:48:31	13	know, pick a number, let's say \$499.99 and		14:50:02	13	utilities are being scaled upwards for	
14:48:36	14	one controller and so on, you would		14:50:06	14	price. The highest price point, which is	
14:48:38	15	essentially be looking at an algebraic		14:50:09	15	499, is now at a utility of zero. The	
14:48:41	16	function that is first a sum of these		14:50:14	16	lowest price point, which is \$99.99, or a	
14:48:44	17	numbers represented by the coefficients.		14:50:19	17	value of \$400, has a number on the top of 3	
14:48:49	18	And that would be the total		14:50:25	18	point -- I can't read with my glasses. This	
14:48:53	19	utility function for that product and then		14:50:28	19	is small. I want to say 3.648. But you can	
14:48:54	20	it goes to the equation.		14:50:33	20	clearly see that now.	
14:49:07	21	Q. Step 2 says "to compute the		14:50:36	21	And if you go to the next	
14:49:09	22	average utilities across the sample."		14:50:38	22	attribute, Wi-Fi capability, the same is	
14:49:12	23	Are those the average utilities reflected in		14:50:42	23	done except it's truncated out here. The	
14:49:15	24	Exhibit 351?		14:50:46	24	utilities are shown from zero, which is for	
14:49:20	25	A. In Exhibit 351, again, on page		14:50:50	25	the lowest attribute, to a high -- to a	

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 174				Page 175			
14:50:52	1	number that is on the upper end, a number	14:52:15	1	Step 4 says "to compute the		
14:50:58	2	for the improvements for each level of the	14:52:17	2	utility per dollar from the price utility		
14:51:02	3	attribute.	14:52:19	3	function." What is the price utility		
14:51:08	4	Q. So I'm sorry, why is it that	14:52:22	4	function?		
14:51:10	5	average on page 4, that line, reflects	14:52:22	5	A. Yes, so this is on page 4, and I		
14:51:12	6	utility difference whereas average on page 3	14:52:26	6	kind of jumped a step here. On page 4 you		
14:51:17	7	reflects average utilities?	14:52:29	7	can see -- and some of this may not be in		
14:51:19	8	A. So again, as stated in the	14:52:37	8	here because what you're doing out here, the		
14:51:25	9	CBC/HB manual, what you have here are part	14:52:40	9	utility for the dollar, you are, when you		
14:51:31	10	worth utilities that they sum up to a zero.	14:52:46	10	re-scale it from zero to -- so the highest		
14:51:33	11	So if you take any one attribute, the sum of	14:52:50	11	price point had a negative value, and now		
14:51:35	12	these values is a zero.	14:52:55	12	you have rescaled it from there to the \$99,		
14:51:37	13	So you take the average of	14:52:58	13	so you've kind of changed the price scale to		
14:51:39	14	these, which is what you see on page 3 of	14:53:00	14	a value scale. And you can then use that		
14:51:43	15	this document and then now to look at it in	14:53:04	15	scale to reflect the, if you take -- you can		
14:51:48	16	the form of an improvement what you're doing	14:53:09	16	use that price curve along with the curve		
14:51:50	17	is you're rescaling these. Rescaling means	14:53:13	17	for any attribute to convert the utilities		
14:51:53	18	you're adding the largest, the smallest	14:53:16	18	for the attribute in a -- onto a price		
14:51:59	19	number, in this case the largest negative	14:53:21	19	scale.		
14:52:01	20	number, you're adding that to everything and	14:53:21	20	And that's what's happening in		
14:52:03	21	so now you're looking at it as zero to some	14:53:22	21	that step, step 4 and step 5 I reflect that.		
14:52:07	22	large number and that's what that is	14:53:26	22	Q. But are they reflected in the		
14:52:11	23	reflective of on page 4.	14:53:28	23	document that I have here, this conversion?		
14:52:12	24	Q. Thank you, I'm following that	14:53:31	24	A. It's not printed and not visible		
14:52:14	25	now, thank you.	14:53:33	25	here. It goes from here to you'd have to go		
Page 176				Page 177			
14:53:37	1	through the steps that are -- if you kept	14:55:59	1	your report, section 2, paragraph 1?		
14:53:39	2	your function keys on there you can see	14:56:29	2	MS. THAYER: Counsel, I believed		
14:53:42	3	where it takes it from over there to convert	14:56:30	3	I may start bumping up into exhibit		
14:53:44	4	it to what is on page 1, on the top here on	14:56:33	4	numbers being used in another		
14:53:51	5	page 1. This is where the different	14:56:35	5	deposition today, so with your		
14:53:56	6	features are now being converted by taking	14:56:37	6	permission, I just have a question, a		
14:53:58	7	those ratios between the utility curve and	14:56:38	7	simple question I think about this		
14:54:02	8	the price curve, I mean the utility for the	14:56:39	8	article. I have it here but I'd just		
14:54:04	9	attribute curve versus the price utility	14:56:42	9	as soon not mark it as an exhibit		
14:54:07	10	curve, those then get converted here into	14:56:44	10	unless you feel strongly about it.		
14:54:09	11	price numbers. You can see that right there	14:56:46	11	MS. HOANG: Well let's see. I		
14:54:13	12	at the top of Exhibit 351, page 1.	14:56:47	12	do that all the time. So maybe you		
14:54:20	13	Q. So the result of step 5 is	14:56:51	13	can mark it PX 1000 or something.		
14:54:31	14	what's reflected on page 1 of Exhibit 351?	14:56:56	14	MS. THAYER: We'll see if we		
14:54:34	15	A. Correct. The result of steps,	14:56:58	15	need to.		
14:54:38	16	step 5 is reflected right there, yes.	14:56:58	16	Q. I just wanted to have it		
14:54:40	17	Q. I believe your report has	14:56:59	17	available because I have been asking lots of		
14:55:18	18	several references cited in Exhibit E. Do	14:57:01	18	questions here, detailed questions. I		
14:55:21	19	you recall that?	14:57:03	19	wanted to ask you to what extent, if any,		
14:55:45	20	A. That's correct.	14:57:07	20	have you utilized any equation or		
14:55:45	21	Q. Reference 3 is the article "How	14:57:13	21	methodology that's laid out in this article		
14:55:48	22	much does the market value an improvement in	14:57:18	22	in this particular study?		
14:55:51	23	a product attribute"; is that right?	14:57:19	23	A. Well, the methodology that is		
14:55:53	24	A. That's correct.	14:57:31	24	used is described in, you know, is described		
14:55:54	25	Q. And you cite that on page 3 of	14:57:47	25	here in sections 3.2, 3.3. The approach in		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 178				Page 179			
14:57:54	1	terms of the fact that you're taking the	14:59:32	1	has to do more with the calculation of the		
14:57:59	2	ratio off the average utility for an	14:59:35	2	MVAI and that's where I want to clarify what		
14:58:08	3	attribute improvement to the average utility	14:59:40	3	you just asked.		
14:58:11	4	for the price function, those are described	14:59:40	4	Q. All right. I appreciate that		
14:58:16	5	here and those have been used from, from	14:59:42	5	clarification. So the MVAIs that are		
14:58:23	6	this particular paper.	14:59:49	6	reflected in Exhibit 351, is that something		
14:58:23	7	Q. Are there any differences	14:59:51	7	that was done by a different piece of		
14:58:24	8	between the approach that is described in	14:59:54	8	software? Was that done by hand and entered		
14:58:29	9	this paper and the approach that you have	14:59:56	9	into the spreadsheet?		
14:58:32	10	used in your report?	14:59:57	10	A. Those are Microsoft Excel		
14:58:34	11	A. The general approach is similar	14:59:59	11	calculations.		
14:58:39	12	to what's described out here.	15:00:04	12	Q. I'm not quite clear because as I		
14:58:42	13	Q. Are there any differences so far	15:00:11	13	read through this article, there's a whole,		
14:58:43	14	as you know?	15:00:17	14	a large number of equations that they talk		
14:58:44	15	A. Not as far as I know.	15:00:20	15	about and are you saying that all of that		
14:58:45	16	Q. So has the Sawtooth Software	15:00:22	16	calculation is done within an Excel		
14:59:01	17	that you have used, to your knowledge,	15:00:28	17	spreadsheet?		
14:59:03	18	simply implemented the approach that is laid	15:00:29	18	A. So this article has to do both		
14:59:11	19	out in this article?	15:00:32	19	with the theory and the application of it.		
14:59:16	20	A. So the Sawtooth Software is	15:00:34	20	The application is represented in one		
14:59:18	21	responsible for collecting the data on how	15:00:36	21	equation. The buildup as to the		
14:59:21	22	people made the choices. It is also	15:00:40	22	step-by-step as to how did they derive this		
14:59:24	23	responsible for doing, getting the part	15:00:43	23	ratio and the average and the ratios to be		
14:59:27	24	worth utilities.	15:00:46	24	taken, that's what the rest of the paper is.		
14:59:28	25	What this paper is describing	15:00:50	25	So the crux of what we needed to		
Page 180				Page 181			
15:00:53	1	be used here is based on that section 3.3	15:02:38	1	survey," I'm reading at the bottom of page		
15:00:58	2	that I mentioned.	15:02:42	2	3, "of a group of respondents, constituting		
15:00:59	3	Q. Okay. So if you could just turn	15:02:45	3	a sample of the target population of users		
15:01:04	4	to that and make sure that I have it right,	15:02:48	4	of the product at issue (here, the Xbox		
15:01:06	5	to page 403, section 3.3, calculating market	15:02:50	5	Console)."		
15:01:10	6	value, etc.	15:02:51	6	Do you see that?		
15:01:13	7	A. That's correct.	15:02:51	7	A. That's correct.		
15:01:13	8	Q. So the equation 14 is the one	15:03:02	8	Q. So is your report incorrect in		
15:01:23	9	that you implemented to create, for example,	15:03:04	9	the way that it has characterized the target		
15:01:31	10	page 1 of Exhibit 351?	15:03:09	10	population?		
15:01:33	11	A. That's correct.	15:03:10	11	A. Again, if you recall, it is		
15:01:33	12	Q. Thank you.	15:03:20	12	using the word users and own an Xbox Console		
15:01:37	13	MS. HOANG: Could I ask you to	15:03:25	13	interchangeably, so the specific, the		
15:01:38	14	just at least read the Bates numbers	15:03:31	14	specifications of exactly who was recruited		
15:01:40	15	in so that there isn't any confusion	15:03:34	15	are in the survey itself and the data given		
15:01:42	16	later.	15:03:38	16	by the survey.		
15:01:43	17	MS. THAYER: No problem. The	15:03:39	17	So you're right in that sense,		
15:01:45	18	name of the article, it's reference 3	15:03:42	18	the word users is being interchangeably		
15:01:46	19	in the reports, "How much does the	15:03:44	19	used.		
15:01:48	20	market value and an improvement in a	15:03:44	20	Q. Now, invitations were sent to		
15:01:50	21	product attribute?" Bates numbers end	15:04:03	21	the Authentic Response panel; is that right?		
15:01:53	22	in 0603524 through 0603537. Thanks,	15:04:06	22	A. That's correct.		
15:02:00	23	that's a good compromise.	15:04:06	23	Q. Does that panel represent a		
15:02:18	24	Q. Now your report states that you	15:04:16	24	random sample of the US population?		
15:02:35	25	began your work "by conducting an online	15:04:19	25	A. The panel is representative of		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 182				Page 183			
15:04:26	1	the US population from which, so it acts as	15:06:03	1	please.		
15:04:30	2	a sampling frame from which we randomly	15:06:19	2	MS. THAYER: Could you read it		
15:04:34	3	select individuals who are invited to	15:06:20	3	back.		
15:04:39	4	participate in the survey.	15:06:20	4	(Record read as requested.)		
15:04:40	5	Q. Well actually, you didn't	15:06:21	5	A. I did not do any specific		
15:04:51	6	select, did you? The individuals who got	15:06:23	6	research of those who did not respond to		
15:04:56	7	the invitations self-selected, did they not?	15:06:30	7	compare them to those who did respond. But		
15:05:00	8	A. Authentic Response randomly	15:06:34	8	the sample itself is so large and the		
15:05:02	9	identifies individuals within the various	15:06:37	9	population from which it is drawn, the		
15:05:09	10	stratifications of the US Census and sends	15:06:41	10	Authentic Response panel is so large, that		
15:05:12	11	them an invitation to participate. They	15:06:45	11	that should not be an issue.		
15:05:18	12	then self-select and decide to participate	15:06:48	12	Additionally, Authentic Response		
15:05:21	13	or not, but the out-go of invitations is a	15:06:50	13	does a large number of these surveys, and		
15:05:28	14	random, randomly selected from the 4 million	15:06:54	14	there are other companies that maintain and		
15:05:31	15	households that Authentic Response maintains	15:06:56	15	manage panels like this. So I would not		
15:05:35	16	in its database.	15:06:58	16	expect to see that sort of a nonresponse		
15:05:35	17	Q. So did you do any research to	15:07:01	17	bias emerging from there.		
15:05:40	18	determine whether the self-selection that	15:07:03	18	Q. Would you characterize your		
15:05:44	19	occurred when panelists decided to respond	15:07:06	19	sample of 499 respondents in the H.264		
15:05:47	20	or not to respond to the invitation,	15:07:34	20	survey, would you characterize that as a		
15:05:50	21	introduced any bias into the sample?	15:07:36	21	random sample?		
15:05:52	22	A. Okay, so can I ask you to	15:07:40	22	A. I would characterize that as a		
15:05:56	23	rephrase that question because you've got --	15:07:42	23	random -- I would characterize the		
15:05:57	24	it's got multiple parts there. It would	15:07:45	24	invitations that went out as being a random		
15:06:00	25	help me answer it more appropriately,	15:07:48	25	sample. And as a consequence of that, the		
Page 184				Page 185			
15:07:53	1	people who participated in the survey would	15:09:33	1	probability sample.		
15:07:55	2	be a random sample, who took the H.264	15:09:34	2	Q. What do you mean by the surveys		
15:08:02	3	survey all the way to the end would be	15:09:38	3	were sent out?		
15:08:04	4	characterized as being a random sample.	15:09:39	4	A. So Authentic Response had a		
15:08:07	5	Q. So in your expert opinion, the	15:09:42	5	database of 4 million households. We		
15:08:10	6	499 individuals that responded to the H.264	15:09:45	6	instructed them to randomly send out surveys		
15:08:16	7	survey constitutes a random sample of Xbox	15:09:49	7	that were so distributed to represent the US		
15:08:23	8	owners?	15:09:55	8	Census.		
15:08:25	9	A. Yes.	15:09:55	9	So let's take males represented		
15:08:25	10	Q. Do the 561 individuals who	15:09:59	10	in the US Census, that would be a		
15:08:32	11	responded to the 802.11 survey constitute a	15:10:01	11	stratification. And they randomly sent it		
15:08:38	12	random sample of Xbox owners in your expert	15:10:04	12	out to the males that were classified in the		
15:08:42	13	opinion?	15:10:07	13	database and so on.		
15:08:42	14	A. Yes.	15:10:08	14	And that's what I mean by a		
15:08:42	15	Q. Are they probability samples?	15:10:10	15	probability sample.		
15:08:57	16	A. They are probability samples	15:10:16	16	Q. Is the population of Xbox users		
15:09:01	17	within the stratification that represented	15:10:21	17	distributed in the same way as the US Census		
15:09:06	18	the various US Census demographic variables.	15:10:24	18	is?		
15:09:10	19	Q. Are they probability samples of	15:10:25	19	A. No.		
15:09:17	20	Xbox owners?	15:10:28	20	Q. Is the population of Xbox owners		
15:09:18	21	A. As a consequence of what was	15:10:32	21	distributed in the same manner as the US		
15:09:21	22	sent out, because again, you know, the	15:10:35	22	Census is?		
15:09:23	23	surveys were sent out, those were	15:10:35	23	A. I'm not aware and I don't know.		
15:09:26	24	probability sample. As a consequence of	15:10:40	24	It also doesn't matter for me because what I		
15:09:29	25	that, the Xbox owners would also be a	15:10:42	25	did do is the population of -- the sampling		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 186				Page 187			
15:10:47	1	frame, anybody who responded to the survey,	15:12:36	1	cutoff because of some regulation?		
15:10:50	2	was distributed to the US Census. And	15:12:38	2	A. You can't have an eight year old		
15:10:54	3	therefore, it represented the broader	15:12:41	3	or a ten year old complete a survey.		
15:10:57	4	marketplace and those who represented the	15:12:43	4	Q. How about an 11 year old?		
15:11:01	5	Xbox 360 would automatically reflect -- I'm	15:12:45	5	A. If -- 11 year old cannot be --		
15:11:05	6	sorry, those who represented the Xbox would	15:12:56	6	cannot complete a survey without the written		
15:11:08	7	automatically reflect a random sample.	15:13:01	7	permission of their parents. That's my		
15:11:13	8	Q. But with an artificial age	15:13:03	8	understanding, okay.		
15:11:19	9	cutoff, correct?	15:13:04	9	Q. What about a 12 year old?		
15:11:20	10	A. That's correct.	15:13:11	10	MS. HOANG: Objection; form.		
15:11:20	11	Q. Who suggested the age cutoff	15:13:12	11	A. I can't recall exactly what that		
15:11:38	12	that you applied in your survey?	15:13:14	12	cutoff is, but it's somewhere, it falls in		
15:11:40	13	A. Well, the -- there are certain	15:13:17	13	that area.		
15:11:50	14	policies in the -- and certain rules in	15:13:17	14	Q. Did you have the age cutoff		
15:11:55	15	terms of who you can do surveys with and how	15:13:20	15	because it was administratively awkward or		
15:11:59	16	you do surveys with, the people who are	15:13:24	16	because you made a professional		
15:12:01	17	below 18, and it was reflective of that.	15:13:27	17	determination that the views of somebody		
15:12:05	18	I mean you -- the distribution	15:13:29	18	younger than 16 were not relevant to your		
15:12:12	19	of -- in the panel itself, you may have	15:13:35	19	survey?		
15:12:17	20	people of different age groups, but who can	15:13:37	20	A. The age cutoff was meant to		
15:12:21	21	or cannot take, that is reflective in a	15:13:43	21	reflect more the fact that there are certain		
15:12:23	22	regulatory -- in a trade association ESOMAR	15:13:47	22	guidelines in terms of who you can or cannot		
15:12:27	23	or CASRO and that is typically managed by my	15:13:50	23	survey in the presence or absence of the		
15:12:31	24	field team.	15:13:56	24	family member.		
15:12:35	25	Q. So are you saying you had an age	15:13:57	25	So we wanted to make sure --		
Page 188				Page 189			
15:13:59	1	that coupled with the fact that we also	15:15:14	1	by the fact that when you go below a certain		
15:14:01	2	wanted to make sure that the people	15:15:17	2	age, parental consent, consent is required		
15:14:03	3	participating in the survey are reflective	15:15:25	3	and that's why the cutoffs were set up the		
15:14:05	4	of those who own an Xbox and have had an	15:15:28	4	way they were cut off -- the way they were		
15:14:12	5	influence in the purchasing process.	15:15:31	5	set up.		
15:14:14	6	Q. Did you conclude that a male age	15:15:31	6	Q. Is it possible to do a survey		
15:14:17	7	15 would not be likely to have participated	15:15:35	7	that, an online survey where consents have		
15:14:22	8	in the purchasing decision for the Xbox in	15:15:43	8	to be obtained for minors? Do you know one		
15:14:25	9	his household?	15:15:45	9	way or the other?		
15:14:26	10	A. And what do you mean by that?	15:15:46	10	A. I don't know.		
15:14:30	11	In what sense are you asking that question?	15:15:47	11	Q. Have you ever done such a		
15:14:31	12	Q. Well, you, in responding to my	15:15:49	12	survey?		
15:14:34	13	questions about why certain age groups were	15:15:50	13	A. I believe our company has done		
15:14:37	14	excluded from taking the survey, you	15:15:53	14	that, again, in the area of video games, and		
15:14:41	15	mentioned that you had this criterion that	15:15:56	15	I don't --		
15:14:45	16	you wanted to make sure that the individuals	15:15:57	16	Q. I was going to ask you just		
15:14:46	17	who responded had some involvement in the	15:15:58	17	about that because most of the people I know		
15:14:49	18	purchasing decision, and I'm following up on	15:16:00	18	that play video games are 14 and 15 year old		
15:14:51	19	your testimony to say did you assume that a	15:16:03	19	boys.		
15:14:55	20	15 year old boy, for example, would not	15:16:03	20	A. Correct. So again, this gets		
15:14:58	21	normally participate in the decision to	15:16:05	21	into a lot of operational things that my		
15:15:02	22	purchase the Xbox for his household?	15:16:09	22	company's people were knowledgeable and who		
15:15:06	23	MS. HOANG: Objection; form.	15:16:13	23	manage those operational details with		
15:15:07	24	A. No, I don't think we made that	15:16:15	24	companies like Authentic Response.		
15:15:11	25	decision. As I said, it was partly driven	15:16:17	25	Q. What was done, if anything, to		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 190				Page 191			
15:16:22	1	determine whether people were telling the	15:17:51	1	within the last 30 days, it would have been		
15:16:24	2	truth about having taken a market research	15:17:54	2	possible to check IP addresses, for example;		
15:16:32	3	study in the last 30 days when they were	15:17:58	3	is that right?		
15:16:34	4	asked that question?	15:17:58	4	A. I believe so.		
15:16:35	5	A. So it obviously is a clear	15:18:00	5	Q. Now, were there any -- strike		
15:16:41	6	question that it asked. I don't -- I do	15:18:10	6	that.		
15:16:44	7	believe that Authentic Response has certain	15:18:11	7	Did you keep track of whether		
15:16:47	8	procedures that -- where the data is	15:18:14	8	individuals started the survey but did not		
15:16:52	9	compared to their own database, where	15:18:17	9	finish them for reasons other than that they		
15:16:57	10	someone may -- if someone misrepresents a	15:18:20	10	were screened out automatically by the		
15:17:02	11	particular question like that, and then they	15:18:23	11	programming?		
15:17:06	12	have an, the ability to remove them from the	15:18:24	12	A. Let me just go back. So, for		
15:17:08	13	panel. And so effectively the people that	15:18:37	13	example, if I look at my report which is		
15:17:11	14	we are getting in terms of these surveys are	15:18:39	14	Exhibit 338, on page 8, there were 158		
15:17:14	15	those who from Authentic Response's point of	15:18:45	15	respondents that were incomplete and 108,		
15:17:19	16	view are those who are providing credible	15:18:49	16	for the H.264 survey, and 189 respondents on		
15:17:21	17	answers.	15:18:53	17	the 802.11 survey. So these would fall into		
15:17:21	18	Q. Do you know whether any specific	15:19:00	18	those that started the survey but did not		
15:17:24	19	research was done with respect to your	15:19:03	19	get completed or did not get screened.		
15:17:27	20	sample to determine whether the respondents	15:19:05	20	Q. Did you do any research to		
15:17:33	21	answered truthfully or not?	15:19:07	21	determine why nearly a third of respondents		
15:17:35	22	A. I do not know that.	15:19:13	22	stopped taking the survey before they		
15:17:36	23	Q. With respect to at least the	15:19:15	23	finished?		
15:17:44	24	question of whether or not the respondents	15:19:16	24	A. I did not do that. It wasn't		
15:17:46	25	had taken an Authentic Response survey	15:19:19	25	necessary to do that in this case.		
Page 192				Page 193			
15:19:21	1	Q. Is it unusual in your experience	15:20:49	1	survey affect the percentage of incomplete		
15:19:25	2	to have a third of starters not complete?	15:20:54	2	questionnaires?		
15:19:29	3	A. No, it's not unusual.	15:20:54	3	A. No, I don't believe so.		
15:19:30	4	Q. What are the factors that	15:20:55	4	Q. In your experience, it doesn't		
15:19:41	5	influenced the percentage of incomplete	15:20:57	5	affect it at all?		
15:19:48	6	responses in a survey, in an online survey?	15:20:58	6	A. I've -- if a survey has been		
15:19:51	7	A. It could be anything from the	15:21:04	7	designed like the way we've done, the pilot		
15:19:54	8	fact that -- as to, you know, when we	15:21:06	8	test and the interviews before that, you		
15:19:57	9	decided to close the survey to get the data	15:21:09	9	know, the complexity of the survey doesn't		
15:20:00	10	and start the analysis. It could be that	15:21:11	10	impact the number of incompletes you get.		
15:20:05	11	people had personal factors, they started	15:21:14	11	Q. Have you used a form like we saw		
15:20:11	12	the survey one evening, or, you know, one	15:21:23	12	in Exhibit 340 in all of your other conjoint		
15:20:14	13	afternoon and got busy with other things.	15:21:31	13	surveys?		
15:20:16	14	So there could be a number of factors and I	15:21:32	14	A. What is that, Exhibit 340?		
15:20:18	15	can't tell for sure.	15:21:42	15	Q. Sorry, I'm trying to dig it out		
15:20:26	16	Q. Does the length of the survey	15:21:44	16	so I can show it to you.		
15:20:28	17	affect the percentage incompletes you	15:21:46	17	A. Well, I personally have not used		
15:20:30	18	anticipate?	15:21:50	18	the form. Most of the pilot interviews are		
15:20:30	19	A. No, it doesn't, because those	15:21:52	19	done by my field team, and they would have		
15:20:34	20	starting to take the survey have no reason	15:21:57	20	used forms like that while doing pilot		
15:20:39	21	to know how long -- I mean they know	15:22:02	21	surveys.		
15:20:42	22	approximately how long a survey is, but I	15:22:03	22	Q. So if I were to look at the		
15:20:45	23	don't believe the length of the survey	15:22:05	23	surveys that you did, for example, in the		
15:20:46	24	affects the incompletes.	15:22:09	24	Apple/Samsung matters, I would find		
15:20:48	25	Q. Does the complexity of the	15:22:13	25	documents much like in Exhibit 340?		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 194				Page 195			
15:22:15 1	A. I don't know for sure, but yes, you're likely to find something like that.	15:23:24 1	A. I don't know for a fact. I was not there.	15:22:17 2	15:23:26 2	Q. Has Ms. Pasternack ever given these forms out after the respondents took the pilot survey?	15:22:20 3
15:22:20 3	Q. Same with your other litigation survey that was listed in your CV?	15:23:26 3	A. I don't believe so. Again, I don't know for a fact, but I don't believe that would be the case.	15:22:21 4	15:23:31 4	Q. Do you know why there's no dates on these documents that are assembled in Exhibit 340?	15:22:23 5
15:22:23 5	A. I would expect so. But again, my field team informs me of what they did in the pilot survey and they give me guidance in terms of designing the survey. I'm not required from the point of view of the pilot surveys. Those are meant to inform me in writing up my survey.	15:23:35 5	A. I don't know.	15:22:28 6	15:23:37 6	Q. Do you believe that it is standard practice to complete forms like this omitting the date?	15:22:30 7
15:22:30 7	Q. In each instance is it your understanding that these forms have been handed out to respondents rather than read to them?	15:23:42 7	A. The purpose of this is to inform me. So it is really meant to be one that's a note-taking pad for the respondent in this case.	15:22:32 8	15:23:45 8	So I would -- there is no standard practice here except what is convenient for the respondent and the moderator who is conducting those pilot surveys.	15:22:35 9
15:22:35 9	A. I don't know for a fact. I can't remember now on every one of those instances exactly how it was done.	15:23:46 9	Q. On page 4 of your report there's	15:22:38 10	15:23:50 10		15:22:41 11
15:22:41 11	Q. Has it ever occurred that Ms. Pasternack or somebody else has read this form to a respondent and obtained answers and written down the answers that the respondent gives, rather than giving the document itself to the respondent?	15:24:01 15		15:22:42 12	15:23:54 12		15:22:45 13
15:22:45 13	MS. HOANG: Objection; form.	15:25:04 25		15:22:47 14	15:23:56 13		15:22:50 15
15:22:50 15				15:22:55 17	15:23:58 14		15:22:58 18
15:22:58 18				15:23:01 19	15:24:01 16		15:23:01 19
15:23:01 19				15:23:12 20	15:24:08 17		15:23:12 20
15:23:12 20				15:23:14 21	15:24:12 18		15:23:14 21
15:23:14 21				15:23:16 22	15:24:15 19		15:23:16 22
15:23:16 22				15:23:17 23	15:24:16 20		15:23:17 23
15:23:17 23				15:23:20 24	15:24:19 21		15:23:20 24
15:23:20 24				15:23:23 25	15:24:23 22		15:23:23 25
15:23:23 25					15:24:24 23		
					15:24:28 24		
					15:25:04 25		
Page 196				Page 197			
15:25:06 1	a section on survey inputs. Step 1 says "We were provided, by counsel, with descriptions of the features to be tested." Do you see that?	15:26:52 1	ensure that it would be understood and then had it pilot tested by Lia Pasternack.	15:25:13 2	15:26:55 2	Q. Can you look at question QH8 in Exhibit F2, QH8.	15:25:15 3
15:25:13 2		15:27:03 3	A. Could you repeat that question again, please. QH?	15:25:15 3	15:27:34 4	Q. Yes, 8.	15:25:18 4
15:25:15 3		15:27:34 4	A. Yes.	15:25:18 5	15:28:02 5	A. Yes.	15:25:18 5
15:25:18 4		15:28:04 6	Q. Was that provided orally or in writing?	15:25:18 6	15:28:04 6	Q. Did counsel provide you with the definition that's contained in the parenthetical there?	15:25:21 7
15:25:18 5	A. Yes.	15:28:06 7	A. It was provided orally.	15:25:21 7	15:28:24 8	A. No, this was written by me.	15:25:21 8
15:25:18 6	Q. Was that provided orally or in writing?	15:28:24 9	Q. Did counsel provide you with the description of the H.264 decoding feature?	15:25:21 8	15:28:24 9	Q. And what did you base this definition on?	15:25:22 9
15:25:21 7		15:28:26 10	A. Counsel --	15:25:22 9	15:28:26 10	A. I can't recall exactly, but it was my looking up the definition of H.264 encoded video and including a sentence there to describe that.	15:25:32 10
15:25:22 9		15:28:27 11	MS. HOANG: Yes or no.	15:25:32 10	15:28:30 12	Q. Is there any other information that counsel provided you, either by way of a description or an explanation, that you relied on in either formulating or executing the surveys in this case?	15:25:35 11
15:25:32 10		15:28:33 13	A. Yes.	15:25:35 11	15:28:33 13	MS. HOANG: You can answer yes or no.	15:25:48 12
15:25:35 11		15:28:41 14	Q. Did counsel provide you with the description of the Wi-Fi feature?	15:25:48 12	15:28:41 14		15:25:50 13
15:25:48 12	MS. HOANG: Yes or no.	15:28:42 15	A. Verbal description, yes.	15:25:50 13	15:28:42 15		15:25:51 14
15:25:50 13		15:28:47 16	Q. Did the description of the Wi-Fi feature in the survey differ at all from the description that was provided to you by counsel?	15:25:51 14	15:28:47 16		15:25:55 15
15:25:51 14		15:28:56 17	A. It was written by me, and it was pilot tested. I don't recall verbatim whether it was the same or it differed. But I can say for a fact that I wrote that to	15:25:55 15	15:28:56 17		15:25:58 16
15:25:55 15		15:29:00 18		15:25:58 16	15:29:00 18		15:25:59 17
15:25:58 16		15:29:01 19		15:25:59 17	15:29:01 19		15:26:01 18
15:25:59 17		15:29:52 20		15:26:01 18	15:29:52 20		15:26:26 19
15:26:01 18		15:29:54 21		15:26:26 19	15:29:54 21		15:26:29 20
15:26:26 19		15:29:57 22		15:26:29 20	15:30:03 23		15:26:31 21
15:26:29 20		15:30:06 24		15:26:31 21	15:30:06 24		15:26:32 22
15:26:31 21		15:30:07 25		15:26:32 22	15:30:07 25		15:26:39 23
15:26:32 22				15:26:39 23			15:26:46 24
15:26:39 23				15:26:46 24			15:26:50 25
15:26:46 24				15:26:50 25			
15:26:50 25							

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 198				Page 199			
15:30:18	1	A. No.		15:32:40	1	identifying these people, though the	
15:30:18	2	Q. Could you turn to page 6,		15:32:45	2	direction of the guidance was to use both	
15:30:20	3	please. In step 6 you indicate that to		15:32:46	3	questions. It doesn't matter because to a	
15:30:52	4	qualify for a pre-test the interviewee was		15:32:53	4	large extent these interviews, these pilot	
15:30:56	5	required to currently own an Xbox Console.		15:32:56	5	interviews are, the purpose of these	
15:30:59	6	Do you see that?		15:32:59	6	interviews are exploratory, they're to	
15:31:04	7	A. Yes.		15:33:01	7	ensure that people understand the language,	
15:31:04	8	Q. You don't mention here that		15:33:04	8	there's no ambiguity and they can complete	
15:31:06	9	there was any criteria that screened out		15:33:09	9	the task without any problem.	
15:31:10	10	people in addition on whether or not they		15:33:11	10	So that would be my answer. And	
15:31:12	11	had participated in the decision to purchase		15:33:18	11	my direction to the team was to have those	
15:31:15	12	the Xbox. Do you want to amend your answer		15:33:23	12	who own as well as those who had an	
15:31:18	13	from earlier today?		15:33:25	13	influence into the decision to be included.	
15:31:30	14	MS. HOANG: Take as much time as		15:33:28	14	Q. Is there any document that	
15:31:32	15	you need to review that.		15:33:30	15	reflects what you just said rather than	
15:31:35	16	MS. THAYER: Counsel, that's a		15:33:33	16	what's in the report here?	
15:31:36	17	bit of coaching.		15:33:34	17	A. I don't have it. At least I	
15:32:07	18	A. So let me answer this question		15:33:40	18	have not seen such a document. It was a	
15:32:08	19	as follows: Which is my instructions to the		15:33:43	19	verbal communication to the moderators who	
15:32:15	20	field team were to identify those who owned		15:33:47	20	did the pilot survey and I would need to	
15:32:21	21	and who made, who were involved in the		15:33:52	21	verify that for a fact with the team. In	
15:32:24	22	purchase decision as well.		15:33:57	22	either case, it does not impact.	
15:32:28	23	Now, it doesn't matter which way		15:34:00	23	These were largely a pilot test	
15:32:31	24	-- and I can't recall -- I don't know for a		15:34:02	24	to ensure understandability. This was not	
15:32:37	25	fact whether both the questions were used in		15:34:06	25	the data that was finally collected. The	
Page 200				Page 201			
15:34:09	1	final data collection involves respondents		15:35:59	1	A. So instructions were given at	
15:34:11	2	who answered both the questions.		15:36:01	2	the start as to what they needed to do, and	
15:34:13	3	Q. This report says that the		15:36:05	3	they were given that form. They took notes	
15:34:18	4	pre-test respondents received open-ended		15:36:09	4	on that form, and they handed that, or	
15:34:23	5	verbal debriefs. Is that accurate?		15:36:12	5	raised their hands if they had some issues.	
15:34:24	6	A. Yes, it is, because they were		15:36:14	6	And that would be the process that would be	
15:34:35	7	told -- let me just -- let me just clarify		15:36:18	7	followed.	
15:34:46	8	where you are reading this from.		15:36:21	8	Q. So if a respondent had this	
15:34:48	9	Q. It is the third paragraph under		15:36:23	9	form, read the one question on the front	
15:34:49	10	step 6.		15:36:24	10	page that says "Can you tell me whether any	
15:35:16	11	A. Yes, so basically, they were		15:36:28	11	questions or wording was unclear," if that	
15:35:20	12	informed, they were recruited, they were		15:36:31	12	respondent said no, there was no further	
15:35:23	13	brought into the central location of the		15:36:33	13	debriefing, was there?	
15:35:26	14	mall, they were -- they were briefed to		15:36:33	14	A. There was no further debriefing	
15:35:30	15	indicate if there were any issues, to make a		15:36:35	15	because they wrote that, handed that piece	
15:35:33	16	note of it, and that is what we're calling		15:36:37	16	of paper, and that was what is done.	
15:35:37	17	here as open-ended verbal debriefs from the		15:36:47	17	Q. The report also refers to	
15:35:40	18	pre-test respondents.		15:36:50	18	experienced interviewers in plural. Is it	
15:35:43	19	Q. Your report says that these		15:36:53	19	your testimony that there were multiple	
15:35:44	20	open-ended verbal debriefs took place after		15:36:55	20	interviewers who debriefed respondents, or	
15:35:47	21	the respondents answered the survey		15:36:58	21	just Ms. Pasternack?	
15:35:50	22	questionnaire -- survey questions. So did		15:37:03	22	A. Ms. Pasternack was the	
15:35:53	23	the debriefing occur both before and after		15:37:06	23	moderator. There were proctors who	
15:35:57	24	the respondents answered the survey		15:37:09	24	recruited and got people into the room and	
15:35:59	25	questions?		15:37:11	25	seated them, or situated them in front of	

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 202				Page 203			
15:37:15	1	the computers so that they were completing	15:39:03	1	the same thing as MVAI, as you use those		
15:37:17	2	the survey.	15:39:06	2	terms?		
15:37:18	3	Q. So was there just one	15:39:06	3	A. Well, I've seen, for example, in		
15:37:19	4	interviewer or were there multiple	15:39:13	4	Rossi's report where he talks about in a		
15:37:21	5	interviewers who debriefed the respondents?	15:39:14	5	rebuttal to my report, that, you know,		
15:37:24	6	A. There was one interviewer, in	15:39:18	6	again, references it as willingness to pay		
15:37:27	7	this case, Lia Pasternack.	15:39:22	7	being computed for each individual		
15:37:46	8	Q. We talked a little bit about	15:39:26	8	respondent in the -- in the survey. And I'm		
15:37:59	9	MVAI and I have some additional follow-up	15:39:30	9	not aware of that approach. I'm aware of		
15:38:02	10	questions. Your report on page 11 states	15:39:33	10	the MVAI approach that is described in this		
15:38:06	11	that "Willingness to pay, or MVAI, can also	15:39:35	11	paper, and that's the approach that I took.		
15:38:13	12	be computed using market simulation	15:39:37	12	Q. And you'd contrast that		
15:38:17	13	results."	15:39:43	13	approach, you said Dr. Rossi mentioned		
15:38:18	14	Do you see that sentence?	15:39:45	14	calculating willingness to pay on an		
15:38:19	15	A. Yes.	15:39:47	15	individual basis, you're contrasting that		
15:38:22	16	Q. Let me just first start by	15:39:50	16	with what?		
15:38:25	17	asking is there any difference in your use	15:39:50	17	A. I'm contrasting that with what		
15:38:27	18	of the terms between willingness to pay and	15:39:54	18	we do out here, which is to take the average		
15:38:32	19	MVAI?	15:40:00	19	utilities across the sample and calculate		
15:38:33	20	A. The difference between, you	15:40:05	20	the MVAI as a ratio, as described in this		
15:38:43	21	know, what -- again, willingness to pay at	15:40:11	21	paper.		
15:38:48	22	the market level for a group of consumers	15:40:15	22	Q. But if you're getting the		
15:38:51	23	that are represented as survey respondents	15:40:16	23	average, don't you have to start first by		
15:38:54	24	and the word MVAI are identical.	15:40:18	24	calculating the individual willingness to		
15:39:01	25	Q. When is willingness to pay not	15:40:20	25	pay?		
Page 204				Page 205			
15:40:20	1	A. No, it's not done for each	15:41:47	1	market represent the maximum price that		
15:40:24	2	respondent per se, and it is done at the	15:41:51	2	they're willing to pay.		
15:40:29	3	market level and that's the willingness --	15:41:53	3	Q. Would the market price at times		
15:40:33	4	the right way, the right approach to do it.	15:41:55	4	reflect competition as well?		
15:40:35	5	Q. Is willingness to pay the same	15:42:00	5	A. The market price could reflect		
15:40:46	6	thing as market price?	15:42:02	6	competition, yes.		
15:40:49	7	A. And what would you mean by the	15:42:03	7	Q. Your report talks about market		
15:40:53	8	term market price?	15:42:05	8	simulation results. What are you referring		
15:40:55	9	Q. Is that not a term of art for	15:42:09	9	to there?		
15:41:00	10	you?	15:42:10	10	A. So there are -- there's a		
15:41:02	11	A. Well, economists may look at and	15:42:14	11	different approach where you might start		
15:41:05	12	say that the actual price charged for a	15:42:16	12	with -- with simulating, you would start		
15:41:08	13	product is the market price. And what price	15:42:22	13	with describing a product that represents a		
15:41:12	14	a manufacturer charges for a product may	15:42:27	14	product in the marketplace. You would start		
15:41:18	15	depend on other factors.	15:42:30	15	a second product that looks exactly the		
15:41:20	16	Q. Factors other than what?	15:42:32	16	same, same features as the first one. And		
15:41:23	17	A. They could depend on the cost to	15:42:37	17	the calculations in the simulation will give		
15:41:26	18	make it, they could depend on the company's	15:42:38	18	you the average probability of choosing one		
15:41:29	19	own objectives as to what they want to do	15:42:42	19	versus the other.		
15:41:31	20	with the particular feature.	15:42:42	20	In this case, in this sort of a		
15:41:34	21	Q. Would it depend --	15:42:46	21	simulation where the two products are		
15:41:36	22	A. That would be the price that	15:42:48	22	identical, you would expect that the market		
15:41:37	23	would represent more the market price.	15:42:50	23	share would be 50 and 50 for each one of		
15:41:41	24	Whereas, this one is reflective	15:42:52	24	them.		
15:41:42	25	of the survey respondents and what they as a	15:42:52	25	You would say that both of these		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

				Page 206	Page 207
15:42:54	1	-- you would start with both of these products not including a feature, for example the Wi-Fi feature may not be included in both of them and the market share for both of these would be 50/50.	15:44:00	1	difference in the price that you had to raise it by represents the willingness to pay, and that's a different approach, it uses an approach of doing these simulations step by step and will yield exactly the same results as the calculation approach that we have taken out here.
15:42:55	2		15:44:02	2	
15:42:58	3		15:44:05	3	
15:43:00	4		15:44:12	4	
15:43:03	5		15:44:14	5	
15:43:05	6	You would then go to the next step and include the feature the, you know,	15:44:17	6	
15:43:06	7	the B/G networks in one of the products and not include it in the other product, at the same price point, you would you expect that the market share or the probability of choice across the respondents would go up for the product that has the B/G networks included in it, because you're adding value, more people are likely to buy it, you would expect that the market share would go up.	15:44:19	7	
15:43:13	8		15:44:20	8	
15:43:16	9		15:44:26	9	
15:43:18	10		15:44:27	10	
15:43:19	11		15:44:29	11	
15:43:21	12		15:44:30	12	
15:43:24	13		15:44:34	13	
15:43:28	14		15:44:46	14	
15:43:30	15		15:44:47	15	
15:43:32	16		15:44:50	16	
15:43:35	17		15:44:53	17	
15:43:37	18	At the third step of the simulation, you would then look at -- you would then look at lowering -- sorry,	15:44:57	18	
15:43:41	19	raising the price to lower the market share for this product, the product which has greater features in it, such that the market shares come back to a 50/50 approach.	15:45:00	19	
15:43:42	20		15:45:04	20	
15:43:46	21		15:45:06	21	
15:43:49	22		15:45:10	22	
15:43:52	23		15:45:12	23	
15:43:57	24	So these steps that I'm talking about is a simulation approach. The	15:45:15	24	
15:43:58	25		15:45:17	25	A. Not explicitly, but when you
				Page 208	Page 209
15:45:21	1	look at the way a consumer makes choices, if income is more important to them, you are less likely to see them buy a product that has the higher price and that it automatically takes into account that the demand is reflective of the margin -- the income and the budget constraints that any consumer might have in making purchase decisions.	15:46:56	1	Q. In your table 11, if the Sony PlayStation has built in Wi-Fi compatible with B/G/N networks, would that tend to increase or decrease the weighted MVAI in this survey, or be neutral?
15:45:27	2		15:47:21	2	
15:45:30	3		15:47:24	3	
15:45:33	4		15:47:32	4	
15:45:35	5		15:47:38	5	
15:45:37	6		15:47:41	6	MS. HOANG: Objection.
15:45:42	7		15:47:50	7	A. I cannot say for sure, because it also depends on Sony. But I can tell you that my expectation would be that consumers would place a higher MVAI, Xbox consumers
15:45:44	8		15:47:51	8	would place a higher MVAI because they would now have the ability to switch to a Sony if the particular feature is important to them.
15:45:47	9		15:47:54	9	
15:46:03	10	Q. So is it correct that the valuation of a product involves the market price?	15:47:56	10	
15:46:05	11		15:48:03	11	
15:46:11	12		15:48:06	12	
15:46:13	13	MS. HOANG: Objection; form.	15:48:14	13	
15:46:15	14	A. I'd want to know what you mean by market -- the valuation.	15:48:28	14	
15:46:19	15		15:48:30	15	
15:46:27	16	Q. The value that a consumer places on a product feature, for example, does that reflect the market price or not?	15:48:32	16	
15:46:32	17		15:48:34	17	
15:46:35	18		15:48:39	18	
15:46:40	19	MS. HOANG: Same objection.	15:48:43	19	
15:46:41	20	A. That represents what a consumer is, or consumers are collectively willing to pay for the benefit from a particular feature. The actual price that a manufacturer might charge for something may be dependent on other factors.	15:48:47	20	
15:46:43	21		15:48:49	21	
15:46:48	22		15:48:52	22	
15:46:50	23		15:48:55	23	
15:46:52	24		15:49:00	24	
15:46:54	25		15:49:02	25	

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 210				Page 211			
15:49:05	1	that we chose. So there was really no need	15:50:44	1	formula. The confidence interval, and I		
15:49:12	2	to give it on every one. Those are standard	15:50:47	2	could tell you the formula is you would take		
15:49:14	3	approaches, those are standard methodologies	15:50:50	3	the square root of the percentage of people		
15:49:16	4	to compute confidence intervals and there	15:50:54	4	who answered the question in a particular		
15:49:18	5	was no need to do that.	15:50:55	5	way times one minus the percentage of people		
15:49:20	6	In this particular aspect there	15:50:58	6	who answered in that fashion, divided by the		
15:49:22	7	was a need to do that.	15:51:00	7	sample size, and you would multiply by the Z		
15:49:24	8	Q. I believe you referred me to one	15:51:04	8	statistic. That gives you plus or minus,		
15:49:26	9	place in the book that we had out with	15:51:07	9	that gives you the confidence interval.		
15:49:29	10	respect to the statement on page 7 that gave	15:51:09	10	It's a very standard formula for		
15:49:32	11	the range of 3.5 to 5.2 percent. What other	15:51:11	11	large samples that you're talking about out		
15:49:37	12	standard methodologies are you referring to	15:51:13	12	here.		
15:49:38	13	in the answer you just gave?	15:51:13	13	Q. Is it your testimony that this		
15:49:41	14	A. So in that, there were two	15:51:15	14	equation is applicable to all of the		
15:49:45	15	places there that we have marked in that	15:51:18	15	parameters that you report in all of the		
15:49:50	16	book.	15:51:20	16	tables other than tables 11 and 15?		
15:49:55	17	Q. I believe when I asked you about	15:51:23	17	A. That's correct.		
15:49:56	18	page 7 you directed me to the large, large	15:51:24	18	Q. What is a posterior		
15:50:04	19	sample confidence intervals on pages 394 and	15:51:31	19	distribution?		
15:50:09	20	395; is that correct?	15:51:32	20	A. A posterior distribution is a		
15:50:10	21	A. Let me just --	15:51:40	21	term that is used by Bayesian statisticians		
15:50:19	22	Q. It's Exhibit 350, I believe.	15:51:45	22	to indicate that they started with assuming		
15:50:32	23	A. So the basic formula is right	15:51:49	23	a particular statistic, approach -- use --		
15:50:34	24	here at the bottom of page 395, which put	15:51:54	24	as a prior distribution information or data		
15:50:40	25	in, so equation 18 as an example, as the	15:51:57	25	becomes available, that data helps them with		
Page 212				Page 213			
15:52:00	1	updating what the prior distribution was and	15:53:06	1	deposition of Dr. R. Sukumar. The		
15:52:04	2	that updated distribution is referred to as	15:53:08	2	time is 3:53 p.m., we're off the		
15:52:07	3	a posterior distribution.	15:53:11	3	record.		
15:52:08	4	Q. Is the output of the CBC/HB	15:53:11	4	(A recess was taken.)		
15:52:11	5	software a posterior distribution?	16:06:35	5	THE VIDEOGRAPHER: Here now		
15:52:14	6	A. The output of the utilities	16:06:43	6	marks the beginning of tape 6 of the		
15:52:21	7	represents the mean of the posterior	16:06:45	7	deposition of Dr. R. Sukumar, the time		
15:52:23	8	distributions.	16:06:47	8	is 4:06 p.m., we're back on the		
15:52:24	9	Q. Does that mean it is or is not a	16:06:50	9	record.		
15:52:29	10	posterior distribution?	16:06:54	10	Q. Before our last break I had		
15:52:30	11	A. It is not a posterior	16:06:56	11	asked you a question about posterior		
15:52:31	12	distribution, but it is a summary of the	16:06:57	12	distribution. Let me also ask you if, and I		
15:52:33	13	posterior distribution.	16:07:01	13	apologize if I already have, are you		
15:52:43	14	MS. THAYER: I'd like to take	16:07:03	14	familiar with the term posterior credibility		
15:52:44	15	one more break now. I'm beginning to	16:07:06	15	region?		
15:52:48	16	see the end and I'd like to see how	16:07:06	16	A. I'm not a Bayesian by training,		
15:52:51	17	much time we have left on our current	16:07:11	17	so I'm not very familiar, but I know what		
15:52:53	18	tape.	16:07:14	18	credibility region is and I know when you		
15:52:54	19	THE VIDEOGRAPHER: 13 minutes.	16:07:17	19	say posterior credibility region what it		
15:52:55	20	MS. THAYER: Why don't we go	16:07:20	20	probably pertains to, but I'm not an expert		
15:52:56	21	ahead and change tape, we'll run to	16:07:21	21	at that.		
15:52:58	22	the end.	16:07:22	22	Q. Understanding that it's not		
15:53:01	23	THE VIDEOGRAPHER: One moment,	16:07:25	23	within your expertise, just what		
15:53:01	24	please, watch your microphones. Here	16:07:28	24	understanding do you have of the		
15:53:04	25	now marks the end of tape 5 of the	16:07:29	25	relationship between a posterior		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 214				Page 215			
16:07:31	1	distribution and a posterior credibility	16:08:59	1	random variables, that -- so this is more a		
16:07:34	2	region?	16:09:05	2	measure -- a confidence interval estimate,		
16:07:34	3	A. The posterior credibility	16:09:09	3	it helps computes the confidence interval		
16:07:39	4	region, credibility regions are computed	16:09:12	4	estimate for the willingness to pay which		
16:07:42	5	around parameters that represent the	16:09:14	5	comes from that part worth utilities.		
16:07:44	6	posterior distribution, posterior	16:09:20	6	Q. But this formula here is used in		
16:07:46	7	distribution.	16:09:25	7	connection with sampling distributions not		
16:07:48	8	Credibility regions are similar	16:09:27	8	posterior distributions; is that not right?		
16:07:50	9	to confidence intervals for, you know, those	16:09:30	9	A. This is used in the connection		
16:07:54	10	of us who focus more on parametric kind of	16:09:32	10	with -- with sampling distributions or		
16:07:58	11	approaches.	16:09:37	11	ratios of random variables.		
16:07:58	12	Q. Let me ask you to take a look at	16:09:42	12	Q. And is not typically used with		
16:08:01	13	Exhibit 350. I think it's in front of you	16:09:45	13	posterior distributions, is it?		
16:08:04	14	right now. You had earlier pointed me to	16:09:46	14	A. Well, the posterior		
16:08:13	15	page 181 in connection with the calculations	16:09:51	15	distributions are used when you're looking		
16:08:16	16	underlying your exhibit, excuse me, your	16:09:56	16	at the distribution around, that is obtained		
16:08:20	17	tables 11 and 15, do you recall that?	16:09:59	17	from the Bayesian formula.		
16:08:37	18	A. Table 11, right?	16:10:01	18	So posterior distribution -- the		
16:08:39	19	Q. Is that correct?	16:10:05	19	credible interval around, for example, the		
16:08:40	20	A. Yes.	16:10:09	20	part worth utilities itself, would be		
16:08:42	21	Q. Looking at line 15, am I correct	16:10:12	21	appropriate to use the posterior		
16:08:44	22	that this refers to sampling distributions	16:10:14	22	distributions and the credible intervals for		
16:08:48	23	and not posterior distributions?	16:10:17	23	that.		
16:08:52	24	A. Yes. So this represents an	16:10:17	24	This is a formula that is used		
16:08:57	25	approximation when you have the ratio of two	16:10:21	25	for the part worth utilities and assuming		
Page 216				Page 217			
16:10:25	1	that part worth utilities are represented,	16:11:34	1	Q. And this is something that has		
16:10:28	2	are a sample, are coming from a sample of	16:11:40	2	been developed in the classical statistical		
16:10:35	3	the 499 or 561 individuals and the fact that	16:11:43	3	approach?		
16:10:37	4	we have these as random variables and we're	16:11:43	4	A. That is correct.		
16:10:39	5	taking ratios of these random variables, the	16:11:45	5	Q. If you were to calculate a		
16:10:42	6	ratio of the random variable is not clear as	16:12:12	6	Bayesian credibility region with respect to		
16:10:45	7	to what that random variable would be, or	16:12:20	7	the MVAIs that you have reported in table		
16:10:47	8	what the distribution of what that random	16:12:24	8	11, would you agree that the, that that		
16:10:49	9	variable would be.	16:12:29	9	region would look different from the		
16:10:50	10	So what you're seeing here is an	16:12:31	10	intervals that you have reported in table		
16:10:52	11	approximation formula to help compute the	16:12:33	11	11?		
16:10:54	12	confidence intervals around the ratios that	16:12:33	12	A. I would not know how it would --		
16:10:59	13	are -- that represent the MVAI calculation.	16:12:38	13	how different it would look. It could		
16:11:04	14	Q. You mentioned that this equation	16:12:39	14	possibly be different, yes.		
16:11:07	15	is an approximation. Am I correct that the	16:12:41	15	Q. Are you aware of anybody else in		
16:11:09	16	two parallel squiggly lines that we see in	16:12:45	16	your profession that applies the Delta		
16:11:15	17	line 15 is a way of representing that the	16:12:51	17	method of approximation that we see here in		
16:11:21	18	right side of the equation is an	16:12:54	18	Exhibit 350 to part worth ratios to state		
16:11:24	19	approximation?	16:13:04	19	confidence intervals for MVAI calculations?		
16:11:24	20	A. Right, because -- that's	16:13:10	20	A. Yes, I am.		
16:11:26	21	correct.	16:13:11	21	Q. And who are you aware of in that		
16:11:26	22	Q. This approximation, is this	16:13:14	22	regard?		
16:11:29	23	referred to as the Delta method of	16:13:15	23	A. Professor Srinivasan is one of		
16:11:31	24	calculating an approximate variance?	16:13:18	24	them.		
16:11:34	25	A. That's correct.	16:13:18	25	Q. Anybody else?		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 218				Page 219			
16:13:24 1	A. No, that's one that comes to the top of my mind.	16:14:25 1	that's where his work is.	16:13:26 2	Q. Do you believe that he is		
16:13:27 3	Q. Well, if between now and the end of the deposition there's anybody else that comes to mind, I'd appreciate if you'd let	16:14:32 3	qualified to provide opinions in this case	16:13:29 4	about the research that was undertaken by		
16:13:31 5	comes to mind, I'd appreciate if you'd let	16:14:36 4	your company?	16:13:33 6	MS. HOANG: Objection; form.		
16:13:36 7	me know and I'll ask one more last time before we conclude.	16:14:42 5		16:13:37 8	A. Well, when I look at his reports		
16:13:37 9	A. Sure.	16:14:52 6	and I look at the kinds of comments he	16:13:37 10	makes, my personal feeling is that he has		
16:13:43 11	Q. Thank you. Are you familiar with Dr. Peter Rossi?	16:14:54 7	not been involved in doing survey research,	16:13:45 12	but he's an expert in Bayesian statistics		
16:13:46 13	A. Yes, I'm familiar with him.	16:14:56 8	and he can, he can comment on the CBC/HB	16:13:48 14	approach that I've taken.		
16:13:48 15	Q. Are you professionally familiar with him?	16:15:09 11		16:13:48 16	Q. What about his rebuttal report		
16:13:50 17	A. I'm familiar with his work.	16:15:13 12	suggests to you that he has not been	16:13:54 18	involved in doing survey research?		
16:14:01 19	Q. Is he a recognized expert in any particular field so far as you know?	16:15:15 13		16:14:06 20	A. If I can get a copy of his report I can point to a few things.		
16:14:08 21	A. A lot of his work is in the use of Bayesian statistics.	16:15:17 14		16:14:06 22	Q. Of course.		
16:14:10 23	Q. Do you know is he recognized as having any expertise in the area of conjoint analysis?	16:15:19 15		16:14:11 24	MS. THAYER: And counsel, I don't think there's any question as to what this is, so if you don't mind I will not mark it and attach it.		
16:14:14 25	A. As it pertains to the application of Bayesian statistics in using conjoint, in using choice based conjoint data and computing part worth utilities,	16:15:20 16		16:14:14 26	MS. HOANG: That's fine.		
		16:15:24 17		16:14:22 27	Q. But I will hand you the expert		
Page 220				Page 221			
16:15:41 1	report of Peter E. Rossi, August 10, 2012.	16:17:27 1	where people are randomly selected from a	16:15:41 2	16:17:31 2	sampling frame. In our case, the random	
16:16:18 3	A. So, for example, in paragraphs 22, "A draft of the questionnaire should be	16:17:34 3	selection was the invitations that were sent	16:16:31 4	16:17:36 4	out, which is a very common practice.	
16:16:34 5	pre-tested to determine if respondents understand the survey questions. Typically,	16:17:40 5	Authentic Response web and online surveys	16:16:36 6	16:17:46 6	are now very prominent and used extensively.	
16:16:38 7	the results of the pre-test inform revisions of the survey questionnaire. Once a	16:17:49 7	Authentic Response is a company that	16:16:40 8	16:17:51 8	provides these samples and manages these	
16:16:42 9	finalized questionnaire is developed, a sampling procedure is established to select	16:17:54 9	panels.	16:16:44 10	16:17:55 10	And then in subsequent	
16:16:47 11	and administer the survey to sample	16:18:01 11	statements he goes into the comment -- right	16:16:49 12	16:18:05 12	here he talks about free gift. It is common	
16:16:51 13	respondents. Dr. Sukumar reports that certain individuals conducted a pre-test,"	16:18:09 13	practice that members who are in a -- who	16:16:54 14	16:18:13 14	belong to a panel who are used in surveys	
16:16:56 15	and then he goes on to paragraph 23 where he says "Dr. Sukumar used Authentic Response to	16:18:16 15	are compensated in some fashion for the time	16:16:59 16	16:18:20 16	that they spent in completing a survey, and	
16:17:04 17	implement the sampling procedure," does not identify -- "Dr. Sukumar does not identify	16:18:25 17	a physician may be compensated a lot more	16:17:06 18	16:18:26 18	than a consumer is because of the time value	
16:17:08 19	or comment on the procedures implemented by Authentic Response to select their panel but	16:18:28 19	of money that you place for each of these	16:17:11 20	16:18:30 20	respondents.	
16:17:13 21	does state that he directed that members of the Authentic Response panel be selected at	16:18:31 21	So these are examples where he's	16:17:16 22	16:18:33 22	critiquing these things. These are standard	
16:17:19 23	random for invitation. Survey respondents were compensated by a free gift."	16:18:35 23	procedures that are used in survey research.	16:17:22 24	16:18:39 24	It's very common to use these panels, it's	
16:17:23 25	So when you look at when he comments specifically about some of these things later on, survey research is one	16:18:42 25	very common to use, to have the pilot test				

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 222				Page 223			
16:18:47	1	give guidance in that the incentive, he	16:21:05	1	a survey, Dr. Sukumar did not follow		
16:18:52	2	calls it free gift is a term, but incentive	16:21:09	2	standard industry practice and I would		
16:18:56	3	given to survey respondents is, again, a	16:21:14	3	assume that -- or in 64 he says "Dr.		
16:18:59	4	common practice.	16:21:20	4	Sukumar's survey data is only valid if a		
16:19:00	5	Q. Well, in paragraphs 22 and 23,	16:21:22	5	sample could be projected to the relevant		
16:19:02	6	can you tell me more specifically what it is	16:21:25	6	population."		
16:19:05	7	that he has written in either one of those	16:21:26	7	When you're using a random		
16:19:07	8	paragraphs that suggests that he has not	16:21:28	8	sample from a sampling frame, a common		
16:19:10	9	been involved in doing survey research	16:21:31	9	practice done with panel providers like		
16:19:13	10	himself?	16:21:35	10	Authentic Response, and then to say that the		
16:19:13	11	A. Well, when he critiques that, it	16:21:38	11	survey data is not, is only valid if a		
16:19:32	12	is, he critiques that as being an area of	16:21:41	12	sample can be projected to the relevant		
16:19:37	13	concern, and that to me is indicative of	16:21:44	13	population, you know, suggests that, you		
16:19:41	14	someone who as -- you know, I would be	16:21:48	14	know, he has not possibly done, it suggests,		
16:19:49	15	concerned about, do they really know how	16:21:52	15	I mean as I said, his critique in some of		
16:19:50	16	survey research is done in practice.	16:21:55	16	these, and I'm not being specific on every		
16:19:53	17	Q. Well I'm focusing very	16:21:57	17	item, but it does begin to suggest that his		
16:19:54	18	specifically on paragraphs 22 and 23 because	16:22:04	18	focus is not in the area of survey research		
16:19:57	19	those are the ones you read into the record.	16:22:07	19	or having done a lot of survey research out		
16:19:59	20	What about those paragraphs indicates to you	16:22:11	20	there.		
16:20:01	21	that he is critiquing something that is	16:22:11	21	Q. Do you disagree with the		
16:20:04	22	commonly done?	16:22:13	22	proposition that survey data is only valid		
16:20:06	23	A. So the term that he uses, now	16:22:17	23	if the sample can be projected to the		
16:20:10	24	let me -- these are standard practices and	16:22:19	24	relevant population?		
16:21:00	25	he says later on page 19 of his report that	16:22:20	25	A. Well, the data that we have here		
Page 224				Page 225			
16:22:25	1	is projectable to the relevant population.	16:23:44	1	A. And the reason I'm hesitant to		
16:22:29	2	Q. That's not the question.	16:23:49	2	completely answer that question is because		
16:22:31	3	A. It was a random sample.	16:23:51	3	there are instances where the survey data is		
16:22:32	4	Q. Excuse me, I'm sorry, I	16:23:56	4	only, it is only possible to get survey data		
16:22:34	5	interrupted you.	16:23:59	5	that is convenience based and that's the		
16:22:36	6	A. Sorry, go ahead.	16:24:05	6	practicality of the -- of the instance.		
16:22:40	7	MS. THAYER: Could I have you	16:24:07	7	In this case, the survey data is		
16:22:41	8	read back my question because I very	16:24:09	8	a true random sample and the proposition		
16:22:43	9	specifically phrased the question in	16:24:12	9	that you indicate, yes, it can be projected		
16:22:45	10	one way and I think you were answering	16:24:15	10	to the population.		
16:22:47	11	a different one.	16:24:18	11	Q. So you disagree that the sample		
16:22:47	12	(Record read as requested.)	16:24:23	12	that you used was convenience based?		
16:23:04	13	A. The answer there is survey data,	16:24:25	13	A. I disagree that it was		
16:23:06	14	you know, is projectable to the population	16:24:28	14	convenience based.		
16:23:14	15	if it is randomly selected and in this case	16:24:29	15	Q. Were you aware of Dr. Rossi's		
16:23:16	16	it was randomly selected, so yes.	16:24:45	16	involvement in developing the software		
16:23:18	17	Q. Yes, you agree with the	16:24:49	17	program that -- excuse me, in developing the		
16:23:21	18	statement that was in my question?	16:24:54	18	algorithm used in the Sawtooth Software		
16:23:22	19	A. That survey data can be used to	16:24:57	19	program for calculating part worths?		
16:23:31	20	project to a population.	16:25:00	20	A. He mentioned it, he mentions		
16:23:32	21	Q. No, my question is whether it is	16:25:02	21	that in his rebuttal report and based on		
16:23:34	22	accurate to state that survey data is only	16:25:05	22	that, yes, I am aware that he was involved		
16:23:37	23	valid if the survey sample can be projected	16:25:08	23	in that.		
16:23:40	24	to the relevant population, do you agree	16:25:09	24	Q. Other than what you've pointed		
16:23:43	25	with that statement?	16:25:14	25	out to me so far, is there anything else		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 226				Page 227			
16:25:17	1	either about Dr. Rossi or his rebuttal	16:26:42	1	Q. Do you agree that MBAFF is a		
16:25:20	2	report that causes you to question whether	16:26:45	2	highly technical term?		
16:25:22	3	or not he's qualified to give expert	16:26:46	3	A. Yes, it is.		
16:25:24	4	testimony in this case regarding the survey	16:26:47	4	Q. Do you agree that H.264 protocol		
16:25:27	5	research that you undertook?	16:26:53	5	is a technical term?		
16:25:37	6	A. On page 11, paragraph 39, and	16:26:55	6	A. Yes, it is, but respondents in		
16:25:50	7	I'm going now to page 12, he says "Given	16:26:58	7	this, who are Xbox owners or players among		
16:25:55	8	that MBAFFs is a highly technical term that	16:27:03	8	them can be individuals who are highly		
16:25:58	9	is very uncommonly used, it seems highly	16:27:08	9	technical and understand this. And we		
16:26:01	10	likely that most respondents do not know	16:27:10	10	didn't get a hundred percent of the people		
16:26:03	11	what this term means. I recall Dr. Sukumar	16:27:12	11	saying they understand these terms, we only		
16:26:06	12	does not define it other than to state the	16:27:16	12	got 16 percent of those who said they		
16:26:08	13	words that make up the acronym. I would	16:27:18	13	understand this term.		
16:26:10	14	then expect more than 95 percent to respond	16:27:19	14	Q. Where is the 16 percent that		
16:26:13	15	not sure."	16:27:24	15	you're referring to in these answers in your		
16:26:15	16	It is not clear what the basis	16:27:26	16	report?		
16:26:17	17	of his statement is out here. I mean in the	16:27:26	17	A. So I would want to go to the		
16:26:22	18	results we had, only 16 percent said they	16:27:36	18	errata. It says Exhibit 345, table 9, so		
16:26:26	19	had heard about MBAFF, and, you know, it was	16:27:56	19	the errata related to table 9, only 16		
16:26:31	20	not 95 percent. And just as one could argue	16:27:58	20	percent of the 499 Xbox owners said they --		
16:26:33	21	-- you know, it was not 95 percent who said	16:28:10	21	the specific question they were asked about		
16:26:36	22	they'd heard of MBAFF.	16:28:11	22	using MBAFF.		
16:26:38	23	So the basis for some of this	16:28:19	23	Q. Of the 16 percent that reported		
16:26:40	24	critique here, for example, is not very	16:28:34	24	having used it, do you know what percentage		
16:26:42	25	clear to me.	16:28:37	25	understood what that term was?		
Page 228				Page 229			
16:28:38	1	A. Let me make sure I'm reading.	16:29:53	1	true, then that number would have been 95		
16:28:44	2	So it says "Please select the type of video	16:29:56	2	percent.		
16:28:46	3	content you have viewed on your Xbox	16:29:58	3	Q. You mean it would have been 5		
16:28:50	4	Console," and 16 percent of the total sample	16:30:00	4	percent?		
16:28:52	5	of 499 checked MBAFF as an answer.	16:30:00	5	A. No, he says in his, in his		
16:29:00	6	Now, if they did -- the question	16:30:06	6	rebuttal, and I'll look get it for a second		
16:29:03	7	the way it is phrased, if they did not have	16:30:10	7	here, on page 12 he says "I would expect 95		
16:29:05	8	an answer to that they would have said not	16:30:26	8	percent to respond not sure." So he's		
16:29:07	9	sure, and you can see the answers to those	16:30:28	9	saying that he would expect only 5 percent		
16:29:09	10	who said not sure is much larger.	16:30:30	10	who would really know the answer.		
16:29:12	11	Q. So you would have expected zero	16:30:31	11	So the survey clearly is		
16:29:14	12	percent of respondents in your survey to	16:30:35	12	capturing, you know, 16 percent. He says it		
16:29:16	13	have guessed at the answer to that question?	16:30:39	13	likely would have only been 5 percent who		
16:29:18	14	A. I'm not sure I understand your	16:30:42	14	said what MBAFF was. What is the basis that		
16:29:20	15	question. Could you repeat that.	16:30:45	15	he has?		
16:29:22	16	Q. You're assuming that no one in	16:30:47	16	In my case the basis is that		
16:29:25	17	your survey who checked the box MBAFFs was	16:30:50	17	it's a clear question, the question has been		
16:29:31	18	guessing; is that right?	16:30:52	18	asked in very simple terms. The responses		
16:29:33	19	A. It's -- I would assume that	16:30:54	19	may be difficult, the responses may not be		
16:29:36	20	they're not guessing because it's very clear	16:30:57	20	commonplace knowledge, they're not words		
16:29:40	21	if they were, they didn't know about it,	16:30:59	21	that people know. I mean even, for example,		
16:29:42	22	they were not sure about it, they had an opt	16:31:01	22	a word like Dolby, most people don't know		
16:29:44	23	out and they would have checked 98. And if	16:31:04	23	what Dolby really stands for, but they've		
16:29:47	24	-- I mean they would have checked not sure.	16:31:07	24	seen, they've been exposed to those terms.		
16:29:50	25	And if Professor Rossi's 95 percent were	16:31:09	25	So clearly, you know, his 5		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

Page 230				Page 231			
16:31:11	1	percent versus my 16 percent, you know, mine	16:32:23	1	don't -- the answer is not sure. They would		
16:31:14	2	is based on the 499 respondents that took	16:32:25	2	have answered the question -- given the		
16:31:16	3	the survey, his 5 percent is not clear as to	16:32:26	3	response to that question as not sure. And		
16:31:20	4	where he came up with.	16:32:29	4	we got a big chunk of people, we got 50		
16:31:21	5	Q. Would you agree that visually	16:32:32	5	percent of the people or more saying not		
16:31:23	6	it's almost impossible to distinguish	16:32:34	6	sure, I don't know the difference between		
16:31:26	7	interlaced and progressive scan video output	16:32:35	7	interlaced and progressive.		
16:31:29	8	when displayed even on a high quality	16:32:40	8	MS. THAYER: Could you read back		
16:31:31	9	display?	16:32:41	9	my question, please.		
16:31:32	10	A. I'm not a technical person. I	16:32:42	10	(Record read as requested.)		
16:31:33	11	cannot make those differences, but there are	16:32:57	11	A. I did not know whether you can		
16:31:39	12	people among these technology players who	16:33:02	12	distinguish that, and for the purposes of		
16:31:44	13	may understand that, who may be able to	16:33:05	13	the survey I did not need to know that.		
16:31:46	14	visually distinguish that.	16:33:07	14	Q. Is there any particular reason		
16:31:48	15	Q. At the time that you included	16:33:09	15	that the documentation that we saw reflected		
16:31:49	16	the questions QH5A1 and 2, did you know	16:33:14	16	in the letters that we've marked here,		
16:31:59	17	whether it was possible to distinguish	16:33:20	17	letters to me that we've marked that		
16:32:01	18	interlaced and progressive scan video	16:33:21	18	contained information and citations to		
16:32:04	19	output?	16:33:25	19	files, is there any particular reason those		
16:32:06	20	A. So personally, again, you know,	16:33:27	20	documents and files were not produced at the		
16:32:10	21	from a technology point of view,	16:33:29	21	time that you submitted your report?		
16:32:14	22	distinguishing that was not the intent here.	16:33:33	22	A. There's no particular reason. I		
16:32:15	23	The intent was do people -- they all had an	16:33:37	23	mean the files, you know, the main core data		
16:32:19	24	opt out, they could have said I don't know	16:33:46	24	files were given at the beginning and then		
16:32:20	25	the distinction between these two things, I	16:33:48	25	it looked like there were things that were		
Page 232				Page 233			
16:33:50	1	missing and they were subsequently handed	16:34:54	1	time is 4:34 p.m., we're now off the		
16:33:53	2	over.	16:34:57	2	record. One moment.		
16:33:53	3	Q. On how many previous occasions	16:36:15	3	(A recess was taken.)		
16:33:59	4	have you employed Authentic Response to	16:36:15	4	THE VIDEOGRAPHER: The time is		
16:34:02	5	provide, to select and provide respondents	16:36:19	5	4:36 p.m., back on the record.		
16:34:08	6	for a conjoint questionnaire?	16:36:22	6	Q. Have you been able to think of		
16:34:10	7	A. So I don't know an exact number,	16:36:25	7	anyone other than Dr. Srinivasan in response		
16:34:13	8	but I want to say that in the last seven or	16:36:31	8	to the question I asked you earlier about		
16:34:17	9	eight months they have probably worked on	16:36:32	9	anyone you knew who had employed theorem 4		
16:34:21	10	somewhere in the range of six to ten	16:36:36	10	to calculate confidence intervals?		
16:34:24	11	different studies. Again, I don't know the	16:36:39	11	A. You know, it hasn't come back to		
16:34:26	12	exact number. My operations team basically	16:36:41	12	me, but if it does come after this and I'm		
16:34:28	13	keeps track of that.	16:36:45	13	sure there are others who have used it, so		
16:34:29	14	Q. Prior to seven to eight months	16:36:49	14	I'll be sure to mention it to counsel.		
16:34:31	15	ago, had you worked with or hired Authentic	16:36:55	15	Q. I'm going to hand you Exhibit		
16:34:36	16	Response to work with you?	16:36:57	16	339. There is a line item with a star up		
16:34:37	17	A. I believe so, that they were	16:37:07	17	near the top right. Can you read that?		
16:34:39	18	used last year as well.	16:37:11	18	A. On the top right. No.		
16:34:41	19	Q. How many times?	16:37:14	19	Q. There's a star, it looks like		
16:34:42	20	A. I don't remember an exact	16:37:16	20	"models - resp, difficult."		
16:34:48	21	number.	16:37:21	21	A. So these are notes that are Lia		
16:34:49	22	MS. THAYER: Let's take a very	16:37:24	22	Pasternack's, I can't read her handwriting.		
16:34:50	23	brief break, I may be done.	16:37:26	23	I did not see these or rely on these in any		
16:34:52	24	THE VIDEOGRAPHER: One moment,	16:37:29	24	of my reports.		
16:34:53	25	please, watch your microphones. The	16:37:30	25	Q. Did Ms. Pasternack report to you		

CONFIDENTIAL
RAMAMIRTHAM SUKUMAR - 8/28/2012

		Page 234	Page 235		
16:37:32	1	that the respondents had difficulty	16:38:57	1	further.
16:37:34	2	distinguishing among the models of either	16:38:58	2	THE VIDEOGRAPHER: One moment,
16:37:39	3	Xbox or other types of players that she was	16:38:59	3	please, watch your microphones. Here
16:37:43	4	discussing with them?	16:39:00	4	now marks the end of tape 6 of the
16:37:47	5	A. I don't recall that, but I do	16:39:02	5	deposition of Dr. R. Sukumar. The
16:37:54	6	recall that the notion of needing to see the	16:39:05	6	time is 4:39 p.m., we're now off the
16:37:59	7	thumbnail, photo thumbnails was something	16:39:07	7	record.
16:38:02	8	that she mentioned and we had included	16:39:07	8	(A recess was taken.)
16:38:04	9	pictures related to the thumbnail sketches		9	
16:38:08	10	of the boxes.		10	
16:38:09	11	Q. Do you recall anything else that		11	
16:38:12	12	she mentioned to you after her first sets of		12	RAMAMIRTHAM SUKUMAR
16:38:18	13	interviews in connection with this study?		13	
16:38:20	14	A. Well, the conversation, I mean		14	Subscribed and sworn to before me
16:38:26	15	the debrief that she gave me was the one		15	this ____ day of _____, 2012.
16:38:28	16	that was used to develop the survey. So the		16	
16:38:33	17	product of that, of these interviews and her		17	
16:38:36	18	debrief is what led to the development of		18	
16:38:39	19	that, of the survey that was pilot tested.		19	
16:38:42	20	The specifics I can't remember		20	
16:38:45	21	now, but that was what led me to confirm		21	
16:38:48	22	what we did there in the survey.		22	
16:38:52	23	MS. THAYER: With that, I have		23	
16:38:54	24	nothing further.		24	
16:38:56	25	MS. HOANG: I have nothing		25	
Page 236					
1	C E R T I F I C A T E				
2	STATE OF NEW YORK)				
3	: ss.				
4	COUNTY OF NEW YORK)				
5					
6	I, GAIL F. SCHORR, a Certified				
7	Shorthand Reporter, Certified Realtime				
8	Reporter and Notary Public within and for				
9	the State of New York, do hereby certify:				
10	That RAMAMIRTHAM SUKUMAR, the				
11	witness whose deposition is hereinbefore set				
12	forth, was duly sworn by me and that such				
13	deposition is a true record of the testimony				
14	given by the witness.				
15	I further certify that I am not				
16	related to any of the parties to this action				
17	by blood or marriage, and that I am in no				
18	way interested in the outcome of this				
19	matter.				
20	IN WITNESS WHEREOF, I have				
21	hereunto set my hand this ____ day of				
22	_____, 2012.				
23					
24					
25	GAIL F. SCHORR, C.S.R., C.R.R.				